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ABSTRACT

This inventory of research and evaluation projects completed during calendar years 1970-1979 for the Office of the Assistant Secretary for Policy, Education, and Research (ASPER) of the Department of Labor contains summaries of projects on economic, social, and policy background: the labor market: the nature and impact of Department of Labor programs: and the administration of Department of Labor Programs. Each project report summarizes the objectives, methods, and findings of each project: cites the accession number for ordering a copy of the full report, and contains a set of descriptors. The twenty-seven project summaries on economic and social policy include studies on economic and social conditions and policy proposals and legislation. Included in the chapter on the labor market are eighty-five reports on labor demand and supply, the quality of working life of both workers and employees, and various types of job discrimination. The ninety-four summaries on the nature and impact of labor programs outline antidiscrimination, occupational safety and health, employment and training, minimum wage, unemployment insurance, and pension programs. The final section, on program administration, contains forty-one reports on sources and uses of information and evaluation methodology. (MN)

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ASPER Research and Evaluation Projects 1970-79



U.S. Department of Labor
Ray Marshall, Secretary

Office of the Assistant Secretary
for Policy, Evaluation and Research
Arnold H. Packer, Assistant Secretary

1980

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U.S. DEPARTMENT OF HEALTH,
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SOURCES OF REPORTS

Arrangements have been made for the sale of most of these reports through a Federal information and retrieval system, the National Technical Information Service. A few of the reports are available through the U.S. Government Printing Office.

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PREFACE

This publication is an inventory of research and evaluation projects completed during calendar years 1970-79 for the Office of the Assistant Secretary for Policy, Evaluation and Research (ASPER) of the Department of Labor. For ready reference, it summarizes the objectives, methods, and findings of each project, and cites the accession number for ordering a copy of the full report. (See ordering instructions in Sources of Reports.)

Each project is indexed on all relevant dimensions of a matrix that includes subject, method, and locale of study; personal characteristics of the population involved, pertinent law, program, or agency; name and affiliation of the researcher(s) who conducted the project, and the identifying number assigned by ASPER. These indexing terms, or descriptors, are then used to assign the project to the chapter and subchapter—or subject classification, as listed on the Contents page—that most nearly coincides with its principal objective. Within each subchapter, projects are arranged by date of completion, from the earliest to the latest, because much research and evaluation builds on previous findings.

The descriptors in this publication are consistent with those used in the annual projects book of the Office of Research and Development (ORD) of the Employment and Training Administration (ETA) and with ORD's compendium of projects for fiscal years 1963-78. Therefore, readers can use this document, with those published by ORD, to determine the full scope of the Department's research and development activities concerning employment and training.

Readers interested in non-ASPER research and evaluation on other Department of Labor programs are directed to the agency administering the specific program. Publications like those described for ETA are not available in other program areas. The information in this book was compiled by the staff of AKIPAN Associates, Inc. under contract J-9-M-9-0096 for the Office of the Assistant Secretary for Policy, Evaluation and Research. Josephine Pitcher served as the ASPER project officer. We would like to thank Burt Barnow, Donald Nichols, Richard Shore, and Ernst Stromsdorfer for their valuable comments which aided our writing of the introductory material.

INTRODUCTION

This volume summarizes the research and evaluation projects that were completed for the Office of the Assistant Secretary for Policy, Evaluation, and Research (ASPER) of the U.S. Department of Labor during the calendar years 1970-79. Most of the projects were conducted by faculty members of colleges or universities under contracts and purchase orders from ASPER, but some were done by staff members of the Department or private research organizations. ASPER was established in 1969 to provide the Department's policymakers with fundamental knowledge they could use to define and choose among their options in planning and administering programs to deal with the impact of major social and economic problems on workers. During the years spanned by this catalog, these programs encompass employment and training, employment standards, prevention of discrimination in employment, occupational health and safety, unemployment insurance and other forms of income maintenance, employees' pension rights, and collective bargaining.

Because agencies within the Department conduct research and evaluation on their own programs, ASPER was also charged with guiding and coordinating those activities. Specifically, ASPER was instructed: (1) To assist agencies in preparing their annual research and evaluation plans and to develop an annual research and evaluation plan for the Department; (2) to provide the agencies with technical assistance and training in the design and analysis of research and evaluation projects; and (3) to conduct independent evaluations of the programs and to fill research gaps in the agencies' projects. This directive involved ASPER in designing not only the Department's programs, but also their underlying information systems. Thus, ASPER's research and evaluation activities transcend the compass of this volume, because ASPER has helped to shape many projects conducted by other agencies of the Department.

The same directive, however, effectively put ASPER's own research and evaluation activities on a contingency basis because many ASPER projects were occasioned by a program agency's inability to address an issue in timely fashion. In other words, the ASPER activities are essentially a complement to the research and evaluation programs of other agencies in the Department and, consequently, may not exhibit the cohesion and comprehensiveness often associated with mission-oriented research and evaluation. Nevertheless, in spite of its small share of the Department's research, development, and evaluation (RD&E) activities—which has never exceeded 3 percent of RD&E funding—ASPER has had a great impact on the Department's policies and programs.

This introduction attempts to show that impact in the objective terms that characterize the disciplines of research and evaluation. When particular projects addressed political considerations, the summaries of projects mention, but do not emphasize, those considerations. The intended audience of this publication—policymakers and their staffs—undoubtedly have a far keener sense of the political implications of a given study than those who conducted the studies and who also wrote most of the abstracts.

Within this framework, the introduction first traces several broad trends in the ASPER research and evaluation program. It then analyzes specific developments within each of the four subject-matter categories that constitute the chapters of this volume.

TRENDS IN THE ASPER PROGRAM

ASPER's charter implies a major innovation: to approach the analysis of social problems and programs in a nontraditional way. And indeed, ASPER's activities have gone far beyond time-honored methods of cost-benefit analysis of Federal programs in that they have developed new data to improve measures of program efficiency and to examine the unanticipated, as well as the intended, effects of those programs.

ASPER's work has been innovative in another way as well. It first addressed issues on which policy had not been firmly established. In 1969, for example, the ASPER Assistant Secretary was designated to develop a practical and politically acceptable plan that could overcome divisions of opinion on welfare reform.

Other early emphases of ASPER were the anxieties of blue-collar workers (which were thought to hamper their productivity and cause industrial unrest) and educational reform. Both of these topics were major concerns in the early 1970's, and research at the time had provided no clear signals of the proper course to pursue.

These early ASPER projects led, in turn, to greater emphasis in the Department's programs on economic objectives and less on social objectives. In like vein, ASPER began to stress projects whose findings could be used to increase productivity, improve operations in the job market, remove discriminatory barriers to employment, and create more jobs.

At the same time, ASPER began to study the effectiveness of Federally sponsored programs. This emphasis was intensified in late 1971 and early 1972, when the Administration called for 4-year strategy papers on all government activities.

ASPER's emphasis on the Department's various programs generally has mirrored appropriations for the different programs. In the area of employment and training programs, which has dominated the Department's funding pattern, ASPER findings helped to buttress a policy of greater local involvement and contributed to the adoption of revenue sharing under the Comprehensive Employment and Training Act (CETA) of 1973. That statute, which gave State and local governments a more prominent role in planning and administering employment and training programs, also redirected ASPER activities to the develop-

ment of information that could be used in giving technical assistance to State and local governments on the planning and evaluation of employment and training programs.

ASPER has also tested the design and implementation of automated management information systems. Again, the most notable example is the employment and training programs, with emphasis on the expansion of the system to accommodate the Comprehensive Employment and Training Act (CETA). Other major ASPER efforts have focused on research to develop a conceptual framework for evaluating the activities of the United States Employment Service and for assessing the adequacy of unemployment insurance benefits. Other Departmental programs for which ASPER has helped develop new data or new methods for evaluation include the Federal Employee Compensation Act and the Occupational Safety and Health Act (OSHA).

The distribution of the ASPER research and evaluation reports summarized in this volume among the four chapters provides a rough indication of the subject-matter emphasis of the ASPER program. Some 27 reports (about 11 percent of the total in this volume) make up Chapter 1 which focuses on the economic, social, and policy background; that is, the broad setting for the operation of both the labor market and the labor and employment policies for which the Department is responsible. Chapter 2 contains 85 reports (34 percent of the total) which relate to the labor market itself—the nature and extent of labor supply and demand; the way in which workers, their unions, and their employers respond to the ebb and flow in the labor market; and the consequences of the operation of the labor market for various groups of workers. Projects concerning the nature and impact of the Department of Labor's programs make up Chapter 3 which accounts for 94 reports (38 percent of the total). Finally, Chapter 4, with 41 reports (17 percent of the total), focuses on how the Department could do a better job of administering its programs by developing better information for management and better methods for evaluating operations.

In the remainder of this introduction, ASPER's activities are traced within each of these four categories. The discussion indicates the way in which projects are distributed among the subchapters and comments on those projects which are regarded as significant by the individuals in ASPER who were responsible for launching the various projects.

THE ECONOMIC, SOCIAL, AND POLICY BACKGROUND

The 27 reports in Chapter 1 are about evenly divided between studies of economic and social conditions (subchapter A) and studies of the potential impact of policy proposals and nonlabor legislation (subchapter B). The projects included—though comparatively few in number—are the leading edge of ASPER's attempts to address policy issues that confront the Department.

Economic and Social Conditions.—Most of the studies in subchapter A deal with one or another aspect of inflation. Predominantly, these studies focus on the economic effects of some form of wage indexation—a device to protect workers against unexpected changes in the price level. As the first of these studies was completed in 1975, they demonstrate considerable prescience on ASPER's part with respect to looming policy dilemmas.

Policy Proposals and Legislation.—The subject matter of subchapter B is more varied. It includes studies of the possible impact of policy alternatives and the actual impact of certain laws administered outside the Department of Labor. This group of projects includes an early study of whether a given increase in government spending would raise employment more if spent to hire new government workers than if used for purchases from the private sector. This study was funded during the prolonged debate over extending the Emergency Employment Act of 1971, which created the country's first large-scale public employment program in recent years. Together with subsequent ASPER studies of the public employment program (which are included in Chapter 3), and studies by the Employment and Training Administration, this study helped lay the groundwork for discussion and resolution of an important policy issue: Net job creation under public service employment.

THE LABOR MARKET

Because many of the Department's programs cast it in the role of a labor market intermediary, it is not surprising that the 85 reports in Chapter 2 bulk large in the ASPER program. Successful performance in this role requires both comprehensive and specific information about how the labor market functions and the impact of labor market operations on all parties concerned—workers and their unions and employers. (Studies of the program implications of labor market operations are classified in Chapter 3.)

Projects on the operation of the labor market are divided into three categories: (A) Studies of labor demand and supply; (B) studies of adjustments by both employers and employees to circumstances they encounter in the labor market; and (C) studies of how different kinds of workers fare in the labor market.

Labor Demand and Supply.—Most of the 18 reports in this section concern the various determinants of how much labor various demographic groups will supply in stipulated circumstances. These analyses cover women (married vs. unmarried), older men, youth, etc. Two of the reports—both by Kim B. Clark and Lawrence H. Summers—are notable because their interpretation of data from the Current Population Survey on short spells of unemployment and "not in the labor force" pointed to ways in which employment and training programs could alleviate unemployment. Another report in this group—a review of studies of labor demand by Richard B. Freeman, James L. Medoff, and Kim B. Clark—is also noteworthy. It focused on what is known about labor demand (in contrast to the prevailing emphasis on labor supply) and suggested how employment and training programs could reduce unemployment.

Workers' and Employers' Adjustments.—Much of this voluminous section (which contains 47 reports, or over half of the entire chapter) deals with the quality of working life. Focus on this subject reflects the Department's 1913 mandate to "protect and improve the welfare of the workers of the United States." Projects in this category sought to provide a better assessment of American employees' working conditions and to generate innovative ideas that employers and unions could use to improve the way in which they organize and manage work.

ASPER initiated its projects on the quality of working life in fiscal years 1973-74, when it asked scholars to review different aspects of the measurement of the quality of working life. (See contracts L-73-118, L-74-77, L-74-78, L-74-80, L-74-84, L-74-132 and L-74-187.) Six of these were published in 1977 by Good-year Publishing Co., as *Improving Life at Work*. In addition, a 1975 contract with the Battelle Memorial Institute called for a survey of relevant Federal research on the subject.

Beyond these basic projects, ASPER financed the 1972-73 and 1977 rounds of a study by the Survey Research Center at the University of Michigan which sought to measure various dimensions of the quality of employment. The 1977 project (contract J-9-M-7-0019) yielded an invaluable source book that compared the results of these two surveys with those of a similar survey conducted in 1969 by the Survey Research Center under different auspices.

The other projects concerning workers' and employers' adjustments in the labor market are diverse. They cover such topics as workers' drug use, job search, productivity in municipal government, labor turnover and job tenure, and labor-management negotiations. Three may be singled out for comment: The study by Kim B. Clark and Lawrence Summers of labor force transitions and unemployment; their study of demographic differences in cyclical employment variation; and a study by Robert Lerman, Burt S. Barnow, and Phillip Moss of concepts and measures of structural unemployment. In combination, these three studies provided the basis for gearing the fiscal year 1979 budget for programs relevant to the size of the unemployed population.

The Workers' Lot.—This subchapter, composed of 20 reports on how workers fare in the labor market, is dominated by analyses of discrimination in the labor market—against women, blacks, other ethnic groups, the young, the old, ex-offenders, and the handicapped. These analyses, in combination with several studies of antidiscrimination programs (in Chapter 3A), revealed serious flaws in the data used to measure the impact of antidiscrimination programs, as indicated later.

Ten reports in this subchapter analyze the labor market problems confronted by youth, and most of them address the issue of discrimination against youth. Eight of the ten reports in this subchapter concern the 22 papers prepared for a 1978 conference on Employment Statistics and Youth, as part of the Department's response to enactment of the Youth Employment and Demonstration Projects Act of 1977.

Also included in this subchapter is a study by Neal Miller that improved the baseline data on the population of ex-offenders, a group that has presented a persistent challenge in employment and training programs.

THE NATURE AND IMPACT OF LABOR PROGRAMS

In many respects, the contents of Chapter 3, which cover research and evaluation on the operation of the Department's varied programs, represent the "bottom line" in ASPER's activities. Across a whole range of Departmental programs, these studies have tackled such sensitive questions as whether the programs "paid off," whether some of them might have negative as well as positive effects, and whether the Department knew enough about the programs or had the requisite data to evaluate their impact. Evaluating the net impact of the Department's various programs has been and continues to be a, if not the, major concern of ASPER.

The distribution of these reports among the Department's programs is: Antidiscrimination, 11 percent; occupational safety and health, 23 percent; employment and training, 27 percent; minimum wage, 12 percent; unemployment insurance, 23 percent; and pensions, 4 percent. Thus, ASPER's efforts divide about equally between areas where the Department (and State and local government as its agents) deals directly with workers, and those where the Department's chief function is to enforce laws or regulations by insuring that employers comply with them.

Antidiscrimination Programs.—As mentioned above, several of the studies of antidiscrimination programs summarized in this subchapter contributed to strengthening and improving of the Department's data gathering on antidiscrimination programs. The Department, through the Office of Federal Contract Compliance, monitors and coordinates compliance by Federal contractors with Executive Orders 11246 and 11375, which, respectively, prohibit discrimination in employment and require affirmative action at the risk of losing existing contracts and future disbarment. Administration of these programs has been based primarily on reports required by the Equal Employment Opportunity Commission. As a result of these studies, the Office of Federal Contract Compliance is now developing basic estimates of the numbers of minorities and handicapped who are available for employment, as a basis for assessing whether these groups are being hired and promoted at a rate that would indicate compliance with the regulations that apply to Federal contractors.

One of the noteworthy projects in this subchapter is a followup study by Neal Miller who did the previously cited study of the population of ex-offenders. In the study summarized here, he explored what might be done for ex-offenders under CETA Title III, which authorizes the Secretary of Labor to initiate national programs for "selected population segments."

Occupational Safety and Health.—Nine of the 22 reports that make up this subchapter raise new issues, attempt to specify data needs for evaluation, or seek to influence the methods to be used in obtaining data for enforcement of law and regulations with respect to occupational safety and health. Most of the other studies deal with methods and levels of compensation for workers who incur occupational disease or injury.

Policy questions about the adequacy of current health and safety programs for coping with occupational disease prompted a number of these studies. One of them—an analysis of disability compensation for occupational disease based on the 1972 survey of disabled adults by the Social Security Administration—was requested by the Congress. Special attention was also devoted to the diseases designated as black-lung (among coal miners), white-lung (among cotton textile workers), and brown-lung (among workers in industries using asbestos).

Employment and Training.—Nearly all of the 25 reports in this subchapter evaluate various employment and training programs, chiefly their impact on the subsequent earnings and/or employment of participants. Most of the studies relate to programs before 1973, when CETA transferred the actual conduct of most of these programs to State and local governments. Several studies explore related questions; for example: (1) How does the Work Incentive (WIN) program affect welfare costs? and (2) Do State and local governments use Federal funds for public service employment to create new jobs or to lower their own payroll expenditures (and perhaps taxes)?

Several of the studies contributed to the resolution of such policy issues as whether or not retraining pays off. (It does, at least in the short run.) Others contributed to the development of new initiatives (such as the 1978 proposal for welfare reform). Still others contributed to the Department's planning for better data for program evaluation (such as the Continuing Longitudinal Manpower Survey, which follows selected samples of CETA participants for as long as 3 years after they leave the program).

Minimum Wages.—The 12 papers that make up this subchapter range from intricate economic models of a specific effect of minimum wage laws to a comprehensive review of research that is needed for policy decisions. Seven of the papers, however, have a common theme: the possible adverse effects of the minimum wage on the employment (or unemployment) of low-skill workers such as youth and the holders of low-wage jobs such as women. These papers, in combination, highlighted and helped to focus attention on the problems of these groups *vis-a-vis* the minimum wage. One result of the ensuing debate has been the establishment for youth of subminimum wages that are called by other names, such as the Youth Incentive Entitlement Pilot Projects under the Youth Employment and Demonstration Projects Act.

Unemployment Insurance.—About two-thirds of the 21 reports of the impact of unemployment insurance go beyond the traditional focus on benefit adequacy. One, for example, explores the relationship of the unemployment rate to variations in State laws governing eligibility, the level and duration of benefits, and the stringency of enforcement. Another probes the effects of the 1974 extension of benefits, under a Federal law, to counter recession. Still another analyzes the relationship between benefit levels and the duration of unemployment and the intensity of job search. A fourth looks at the impact of the unemployment tax on labor turnover in different industries. Hence, these studies helped to expand the basis for policy decisions beyond the income maintenance function of unemployment insurance.

Pensions.—Four papers relate to pensions, which are a matter of concern to the Department under both the Labor-Management Reporting and Disclosure Act (LMRDA) and the Employee Retirement Income Security Act (ERISA). Both of these Acts cast the Department basically as a monitor and enforcer, rather than a direct provider of benefits for workers. As LMRDA has been in force for about two decades, and has been the subject of much research elsewhere in the Department, most of the studies here concern ERISA, which was enacted in 1974. The last ASPER paper in this subchapter provides a useful outline of the economics of pension plans.

THE ADMINISTRATION OF PROGRAMS

The 41 reports in this chapter are evenly divided between those that concentrate on the sources and uses of information and those that focus on improving methods of using information for evaluating programs. In contrast to the evaluation studies of particular programs in Chapter 3, these projects analyze the information needed for evaluation and methods of using the information.

Sources and Uses of Information.—Of the 20 reports in this subchapter, 7 relate to employment and training programs and 6 to unemployment insurance. Both of these programs have encountered problems in developing appropriate information for evaluation, especially of their long-run effects. The other seven reports in the chapter are scattered among the Department's other programs.

One of them analyzes the potential for planned experimentation in three programs: the Occupational Safety and Health Administration, the Employee Retirement Income Security Act, and the Office of Federal Contract Compliance. It proposes an experimental approach to evaluating possible changes in targeting strategies, inspection probabilities, reporting and disclosure requirements, and financial incentives for good performance.

Evaluation Methodology.—Of the 21 reports in this subchapter, 13 concern employment and training programs. Among other programs, only the Employment Service commands as many as two separate reports.

The projects on employment and training begin with the proceedings of a 1971 conference on the evaluation of such programs. The papers presented at this conference were published by D.C. Heath & Co. in 1972 as *Evaluating the Impact of Manpower Programs*. Included in the subchapter is a 1973 "state-of-the-art" paper, which emphasizes cost-benefit analysis, as does the 1971 conference report. Another paper on cost-benefit analysis, completed in 1975, outlines a method for determining sample sizes for evaluation studies. However, the section also includes papers challenging the use of cost-benefit analysis, examining the labor-market displacement effects of employment and training programs, and exploring their effects on the distribution of income. One study questions the relevance of evaluating training, which may have been overtaken by public employment programs.

The recently rising inflation rate and the unemployment rate gave impetus to a conference on Evaluating the 1977 Economic Stimulus Package. The report of this conference points to the fact that policy evaluation has been heavily oriented to speed of response and shortrun multiplier analysis when it would be beneficial to pay closer attention to potential tradeoff between shortrun demand multipliers and inflation effects. In short, cost-benefit analysis is not the only calculus for the evaluation of programs.

*** **

To sum up, the solid—albeit modest—accomplishments of ASPER research and evaluation activities can serve as a useful resource for persons in policymaking positions outside the Department. Some of the studies have been invaluable to the Department and the Administration in charting a course through largely unexplored terrain. The rationale for this volume is that the studies can also contribute to informed decisionmaking on the Department's programs—in legislature as well as the executive branches of government, whether at the national, State, or local level. For technicians serving in those areas of government, especially, the findings should be not only informative but also instructive.

1A. ECONOMIC AND SOCIAL CONDITIONS

1-001 INDEXING FOR INFLATION: SOME FORMAL MODELS AND AN INFORMAL POLICY PROPOSAL

Alan S. Blinder
Princeton, N.J.

Purchase order B-9-M-5-0580

May 1975

Descriptors: INFLATION; INDEXES; WAGES; ECONOMIC ANALYSIS AND ECONOMETRICS

This paper analyzes the economic theory of indexing at the microeconomic level; in particular how a consumer-worker would react to a change in the fully-anticipated inflation rate and how indexation of wages and/or bonds would alter those responses.

Theoretically, the answers rest largely on the difference between the degree of wage escalation and the effect of inflation on the nominal interest rate. If wage escalation exceeds inflation in the nominal interest rate, then workers would gain from inflation, but if interest inflation exceeds wage escalation, they would lose.

Inflation is treated as a random occurrence, against which workers can purchase insurance from their employers by obtaining an escalator clause, for which they must pay a "premium" in the form of a lower expected wage rate. Under a wide variety of circumstances, most workers will want more than 100 percent escalation because, if they are net lenders, they know they will lose nonlabor income if inflation is unexpectedly high, and gain if it is unexpectedly low. Thus, there should be a substantial demand for escalator clauses in wage contracts, as well as for indexed bonds.

The reason suggested for so few actual indexed contracts is that firms and workers have different needs for insurance when the inflation rate is random. One solution for this is for each firm to arrange to pay wages, on behalf of its workers, into a National Wage Fund (NWF); these wages could be index-linked to the prices received by that industry for its output. The NWF would then make payments to workers, indexed to some broad price index. Both parties would thereby be protected from inflation risks, while the NWF itself would be virtually riskless if its income followed movements in the general price level.

NTIS PB283301/AS; PRICE CODE: A04; 67 PAGES

1-002 COST PUSH INFLATION AND THE VALIDATION HYPOTHESIS

Farrell E. Bloch
Princeton University
Princeton, N.J.

Purchase order B-9-M-5-3037

December 1975

Descriptors: INFLATION; UNIONS; WAGE DIFFERENTIALS; FISCAL POLICY

This study investigated the extent to which monetary and fiscal authorities in the United States have validated union wage increases. It developed a simple model in which the actions of monetary and fiscal authorities are endogenous variables.

The hypotheses generated in the model were tested, but not supported. The results were consistent with the hypothesis that wage increases engender increases in the rate of price inflation even when fiscal and monetary policies do not validate the wage increases. Possible explanations are: (1) Policymakers do not regard wage increases in a growing economy as leading indicators of unemployment and do not validate them with price expansionary policy; (2) inflation is linked to inertia of previous inflation and unemployment; and (3) the assumption of a market (rather than "administered price") economy may be invalid. Further research was suggested, disaggregating wage increases by "administered" vs. "nonadministered" sectors or according to whether the final products produced by the workers appear in the Consumer Price Index.

NTIS PB256283/AS; PRICE CODE: A02; 16 PAGES

1-003 CONSTANT-UTILITY INDEX NUMBERS OF REAL WAGES

John H. Pencavel
Princeton University
Princeton, N.J.

Purchase order B-9-M-5-2067

June 1976

Descriptors: WAGE EARNERS; CONSUMER PRICE INDEX; ECONOMIC STATUS; EARNINGS

This study examined the Bureau of Labor Statistics index of production workers' real spendable earnings as a measure of the standard of living of the typical worker. The index deflates changes in average earnings by changes in the Consumer Price Index (CPI).

It found that: (1) The index does not distinguish increases due to rising hours of work and those due to rising wage rates; (2) it excludes income other than wages; and (3) use of the CPI distorts the index if workers respond to differential price changes by changing their buying habits because the CPI measures the cost of a fixed market basket of goods and services.

To overcome these problems, the study constructed "true" indexes of real income that derive from a measured relationship between a representative individual's level of utility and the prices of consumer goods, the wage rate, and nonlabor income.

NTIS PB267967/AS; PRICE CODE: A03; 29 PAGES

1-004 INDEXATION, EXPECTATIONS, AND STABILITY

Bulent Gultekin and Anthony M. Santomero
University of Pennsylvania
Philadelphia, Pa.

Contract J-9-M-5-0051

July 1976

Descriptors: UNEMPLOYMENT/INFLATION TRADEOFF; WAGES; MACROLEVEL ANALYSIS; PRICES

Although a number of scholars have proposed indexation as a way of "living with" inflation—instead of the costly and time-consuming process of dampening excess demand to

reduce the inflation rate—very little empirical work has been done on the effects of indexation on economic stability. Therefore, this study investigated the impact of indexation on overall economic stability, using a series of analytical macroeconomic models in which price and wage equations depended upon, in varying degrees, actual wage and price movements, either through a price expectation mechanism or through direct indexation.

In a macroeconomic model, indexation is a special case of expectation adjustment, and hence its widespread usefulness at the macroeconomic level rests on the presumption that this institutionalization of expectations is preferred to a less formal scheme.

But implementation had its price. The choice of index was important, as was the question of what sectors would be indexed. Also, the sufficient conditions proved more tenuous with some indexation than without it. Pure wage indexation was the most preferred system, as it unambiguously reduced the constraint upon the system to insure stability.

NTIS PB262329/AS; PRICE CODE: A04; 55 PAGES

1-005 INDEXATION IN A DYNAMIC MULTI-MARKET SETTING

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Contract J-9-M-5-0051

July 1976

Descriptors: UNEMPLOYMENT/INFLATION TRADEOFF; WAGES; PRICES; ECONOMIC ANALYSIS AND ECONOMETRICS

This study analyzed the asymmetry between wage and price movements, using a model of two labor markets that produce a single commodity—one competitive and one not competitive—in which wages and prices move at finite speed in response to excess demands. Short-run movements of the real wage were analyzed to see whether indexation (wage escalators that compensate wage earners for nominal price increases) results in more or less disequilibrium in the labor market.

Indexation was found to be beneficial for all macroeconomic disturbances in an economy with neutral monetary policy; it isolated the labor market from commodity market disturbances and, at the same time, increased the responsiveness of wages to labor market shocks. However, the benefits of reduced disequilibrium in the labor market have to be weighed against the costs of greater variability in the inflation rate, which also followed from indexation.

As the study also showed greater benefits from indexation in the noncompetitive market, it should come as no surprise that wage escalators are more prevalent in unionized markets, if it is assumed that they are less competitive than nonunionized markets.

NTIS PB262027/AS; PRICE CODE: A03; 41 PAGES

1-006 INDEXATION IN A RATIONAL EXPECTATIONS MODEL

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Contract J-9-M-5-0051

July 1976

Descriptors: UNEMPLOYMENT/INFLATION TRADEOFF; PRICES; ECONOMIC ANALYSIS AND ECONOMETRICS

This study investigated whether widespread indexation of wages and prices would eliminate or moderate the short-run tradeoff between output and unanticipated inflation, as described in modern theories of the Phillips curve. It constructed a model with localized commodity markets in which price information was transmitted gradually across markets. Using a model that incorporated rational formation of expectations, indexing was introduced as an ex post-adjustment of local prices in accordance with aggregate price variables that were perceived only with a lag. The indexing rule was taken into account by individuals who based their current supply and demand decisions on anticipated, ex post-indexing, prices.

Because indexing did nothing to speed the flow of information across markets, it turned out that indexing also had no effect on the probability distribution of outputs. Therefore, the model gave no support to the familiar hypothesis that widespread indexing would moderate the Phillips curve.

The model did, however, indicate that the distribution of prices across time and space would be affected by indexing. First, the variance of future prices about their currently predictable values increased, and, second, the dispersion of prices across markets could be reduced.

NTIS PB261942/AS; PRICE CODE: A03; 28 PAGES

1-007 ON INDEXATION AND CONTRACT LENGTH

Jo Anna Gray
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Philadelphia, Pa.

Contract J-9-M-5-0051

July 1976

Descriptors: WAGES; ECONOMIC ANALYSIS AND ECONOMETRICS; INFLATION

This study investigated the effects of wage indexation (to protect workers from unexpected movements in the price level) on macroeconomic fluctuations in a model which highlights the joint determination of two contract characteristics: contract length and an indexing parameter. Within the framework developed by this analysis, a number of propositions were demonstrated.

Optimal indexing, even if costless, will not completely insulate the real sector of an economy from the effects of unanticipated monetary shocks; thus policies that bring about increased monetary variability impose unavoidable costs on the economy. For any given degree of indexing, contract length is a decreasing function of the amount of uncertainty in the system and an increasing function of the cost of contracting. Any movement of the system away from the optimal degree of indexing involves a real resource cost, part of which is reflected in decreased contract length; thus in this model, government regulation of indexing arrangements necessarily imposed social costs. It was shown that contract length may differ across industries in response to variations in the size of industry-specific shocks and that, if indexing is costly, indexing provisions will appear only in

longer contracts. Further, as the variance of monetary disturbances increases, the proportion of contracts indexed will increase. Finally, the costs of monetary variability may differ across industries, causing resource misallocation among industries.

NTIS PB262047/AS; PRICE CODE: A03; 43 PAGES

1-008 ON LONG-TERM CONTRACTING AND THE PHILLIPS CURVE

Robert J. Barro
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Philadelphia, Pa.

Contract J-9-M-5-0051

July 1976

Descriptors: UNEMPLOYMENT/INFLATION TRADEOFF; WAGES; ECONOMIC ANALYSIS AND ECONOMETRICS; COLLECTIVE BARGAINING; EMPLOYMENT

The long-term wage contracting approach has been used to account for wage stickiness in a macroeconomic model, on the rationale that monetary disturbances can affect employment and output, even when the disturbances are recognized, contemporaneously, as monetary in nature. Further, the introduction of wage indexation in these models has altered the manner in which monetary and real shocks are transmitted to employment and output.

This paper argues that such a model produces these conclusions because the contracting approach is applied only to one aspect of the labor market—wage determination—and not to the other aspect—employment determination. It contends that, when optimal contractual arrangements are specified for determining employment, the real effects of monetary disturbances disappear. In fact, the long-term contracting approach seems to rationalize wage rigidity and associated changes in employment through a nonprice rationing mechanism in such a way that these factors become a facade with respect to employment movements.

The conclusion is that the models do not provide a persuasive theoretical argument for labor contracts to allow substantial departures of employment from the mutually advantageous position at LL^* (L is labor input; L^* is the market clearing value of employment). In any event, long-term contracting does not account for a connection between perceived money shocks and departures of L and L^* . Accordingly, the theoretical link between long-term contracting and the Phillips curve has yet to be made. Contracting theory has more pertinence for natural rates of employment and output than for the Phillips curve. In fact, the principal contribution of the contracting approach to short-run macroeconomic analysis may turn out to be its implication that certain stylized features of labor markets (rigid wages, layoffs, and the failure of real wages to move counter cyclically) are a facade with respect to employment determination.

NTIS PB262399/AS; PRICE CODE: A03; 27 PAGES

1-009 SIMULATING INDEXATION

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Contract J-9-M-5-0051

July 1976

Descriptors: ECONOMIC FORECASTING; UNEMPLOYMENT/INFLATION TRADEOFF; WAGE-PRICE RELATIONSHIPS; MODELS; MACROLEVEL ANALYSIS

This study investigated, through simulation, the probable impact of indexation (whereby wage changes are geared to changes in prices) on a small empirical macroeconomic model developed by R. S. Pindyck in 1973. The model contains nine behavioral equations, together with a tax relation and an income identity, which were estimated for 1955-66—a period when the economy was relatively free of adjustments due to expected inflation. The basic model was then simulated for 1966-75 and for four 2-year intervals in that period, using different frequencies and lags of indexation adjustment. These results were then compared with actual time series on all variables, leading to the conclusion that the economy did not appear to have performed very poorly relative to its indexed potential.

Wage indexation was found to improve social welfare, defined by various combinations of weighted values of inflation, unemployment, and, at times, interest rate levels, and simple quarterly adjustment of nominal wages was adequate to obtain these results.

Further, the analysis suggested that the U.S. economy has implicitly incorporated indexation in wage determination. This finding may explain the small enthusiasm for a government-induced shift to real-term contracting.

Finally, the study investigated the optimal timing of widespread indexation and found that the benefits of indexation favor its implementation during contractions of the business cycle, in contrast with labor's pressure for indexation during boom times.

NTIS PB262028/AS; PRICE CODE: A03; 34 PAGES

1-010 WAGE INDEXATION: A MACROECONOMIC APPROACH

Jo Anna Gray
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Philadelphia, Pa.

Contract J-9-M-5-0051

July 1976

Descriptors: MACROLEVEL ANALYSIS; WAGES; BUSINESS CYCLE; UNEMPLOYMENT/INFLATION TRADEOFF

This research developed a framework for investigating the role of indexation in dampening macroeconomic fluctuations. The resulting model incorporated both monetary and real disturbances as sources of price and output variation, but wages were set in accordance with long-term contracts.

It turned out that indexation, while insulating the real variables from monetary shocks, might also exacerbate the real effects of real disturbances. For an economy subject to both types of shocks, this finding implied an optimal degree of partial indexation, with the precise formula depending on the underlying stochastic structure of the economy. In these circumstances, partial indexation cannot fully eliminate the effects of monetary disturbances. Since increased monetary uncertainty imposes costs on the economy, indexing was judged to be an inadequate substitute for intelligent behavior by the monetary authority.

NTIS PB261753/AS; PRICE CODE: A03; 35 PAGES

1B. POTENTIAL IMPACT OF POLICY PROPOSALS

1-011 WAGE AND PRICE MOVEMENTS: A DISCUSSION OF RECENT DEVELOPMENT

James E. Jonish
Texas Technological University
Lubbock, Tex.

Purchase order B-9-M-6-4673

October 1976

Descriptors: WAGE STRUCTURE; UNEMPLOYMENT/INFLATION TRADEOFF; PRICES; BUSINESS CYCLE; COLLECTIVE BARGAINING

This study looked first at broad movements in wage and price levels during 1974-76, using an analytical framework linking them to unemployment, and then at cyclical variations in wage differentials and wage settlements under collective bargaining. Finally, it examined cost of living escalator clauses. It stressed the importance, in examining the dynamics of wage and price changes, of considering the impact of changes in the wage structure and the institutional aspects of wage determination and arrangements set up to deal with wage-price adjustment.

The rates of adjustment of money wages and prices were strongly influenced by heterogeneous markets and institutional forces in the marketplace. Quantities such as inventories, unfilled orders, job vacancies, and unemployment adjusted more rapidly than prices, including wage rates. These lags in the adjustment of nominal magnitudes over physical magnitudes led to the persistence of inflation despite high unemployment.

The downward rigidity of money wages and prices is well known. The author concluded that during inflation, the upward rigidity of money wages requires institutional experimentation, exemplified by the recent resurgence of cost of living escalators.

NTIS PB262845/AS; PRICE CODE: A04; 73 PAGES

1-012 ECONOMIC MODELS OF MIGRATION: REVIEW OF THE LITERATURE AND SOME NEW EVIDENCE

Gary S. Fields
Yale University
New Haven, Conn.

Purchase order B-9-M-6-3410

December 1976

Descriptors: GEOGRAPHIC MOBILITY; LITERATURE REVIEW; ECONOMIC AND SOCIAL CONDITIONS; ECONOMIC ANALYSIS AND ECONOMETRICS

This study explored the modeling of migration behavior from an economic perspective. Several hypotheses were formulated and tested on 1965-70 data on migration between major metropolitan areas.

The economic variables found to be systematically related to migration rates were: real income; measures of turnover in the labor market; and actual and average distance. Economic conditions in the destination area exhibited the hypothesized effects more often than did conditions in the area of origin. The percentage of college students and military personnel also played a significant role. The amount and availability of welfare and unemployment insurance benefits

were important too. The regressions explained up to two-thirds of the variance in intermetropolitan rates.

NTIS PB263283/AS; PRICE CODE: A04; 61 PAGES

1-013 RECENT TRENDS IN THE TRUCKING INDUSTRY

Joel Popkin
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Purchase order B-9-M-8-3778

November 1978

Descriptors: TRUCKING INDUSTRY; INFLATION; PRICES; WAGES; COSTS

This study analyzed recent price and cost trends in the trucking industry and assessed the potential effect on the overall inflation rate of possible wage and price developments in the industry. For the motor freight transportation and warehousing industry, the study used annual data for 1961-75, and quarterly data for 1976 through mid-1978.

A major finding was that trends in ton-miles and revenue per ton-mile, used to measure output and price movements respectively, were probably biased by about 1.5 percentage points per year in opposite directions. Both firms in the industry and their workers experienced income growth exceeding that in the aggregate economy. The behavior of average hourly earnings and an index of prices of materials and services purchased by the trucking industry from other industries constructed especially for this study suggested that trucking costs probably rose at an annual rate of 7.6 percent during 1975-78.

To assess the impact on the overall inflation rate of future price and wage increases in the trucking industry, a unique, 300-equation quarterly model of the U.S. economy was used. Multipliers calculated from this model suggested that a 7-percent wage increase in the industry fully passed through into trucking prices would add 0.3 percent to the gross national product deflator in four quarters, and 0.5 percent in eight quarters—3.5 times as large as the effect of a dollar-for-dollar pass-through alone.

NTIS PB294047/AS; PRICE CODE: A04; 65 PAGES

1B. POTENTIAL IMPACT OF POLICY PROPOSALS**1-014 DIFFERENCES IN THE TOTAL EMPLOYMENT EFFECTS OF GOVERNMENT PURCHASES FROM THE PRIVATE SECTOR AND DIRECT GOVERNMENT HIRING OF THE UNEMPLOYED**

George E. Johnson
University of Michigan
Ann Arbor, Mich.

Purchase order 73-1970

June 1973

Descriptors: UNEMPLOYMENT/INFLATION TRADEOFF; GOVERNMENT PROGRAM IMPACT; FISCAL POLICY; ECONOMIC ANALYSIS AND ECONOMETRICS; UNEMPLOYMENT; PUBLIC EMPLOYMENT PROGRAMS

This study analyzed whether a given increase in government expenditure would raise employment more if spent to hire new government employees than if used for purchases from the private sector. It was a theoretical inquiry using a highly simplified aggregate econometric model of the economy.

The evidence indicated unequivocally that U.S. wage determination mechanisms lead to hyperinflation if the unemployment rate is forced below a certain level by macroeconomic policies. Government hiring of new employees was found to generate more employment than increases in government purchases from the private sector. However, these estimates ignored a number of complications, like the vertical Phillips curve problem, and they should not be taken very literally.

NTIS PB256304/AS; PRICE CODE: A03; 38 PAGES

- 1-015 USING ESTIMATES OF INCOME AND SUBSTITUTION PARAMETERS TO PREDICT THE WORK INCENTIVE EFFECTS OF VARIOUS INCOME MAINTENANCE PROGRAMS: A BRIEF EXPOSITION AND PARTIAL SURVEY OF THE EMPIRICAL LITERATURE**

Orley Ashenfelter and Ronald G. Ehrenberg
U.S. Department of Labor/ASPER
Washington, D.C.

June 1973

Descriptors: WORK INCENTIVES; INCOME MAINTENANCE; FAMILIES; LITERATURE REVIEW

This study presented a brief exposition of the use of income and substitution parameters in estimating the impact of various income maintenance programs on work incentives. It outlined the underlying theory, discussed two proposed plans, and attempted a survey of the existing empirical estimates of these parameters.

Estimates of the income and substitution parameters for males fell in narrow ranges. However, for married females, female heads of households, and AFDC recipients, the evidence was tentative and imprecise.

Thus, the authors felt they could be much more confident of their ability to predict the absolute (dis)incentive impacts of a proposed scheme on males than on females. On the other hand, they noted that it is often possible to predict the relative impacts of several competing programs without knowing the quantitative estimates of the income and substitution parameters. Consequently, the ability to predict relative impacts on females may not be impaired too seriously.

NTIS PB266561/AS; PRICE CODE: A03; 40 PAGES

- 1-016 TAXONOMY OF WAGE, EARNINGS, AND INCOME SUBSIDIES**

Peter M. Greenston and C. Duncan MacRae
The Urban Institute
Washington, D.C.

Contract L-73-91

June 1973

Descriptors: WAGES; INCOME DIFFERENTIALS

This paper presents a diagrammatic technique for comparing wage, earnings, and income subsidies within a common framework. The general properties of a subsidy schedule are discussed and the schedules inherent in a variety of work-related programs proposed as alternatives to the current welfare system are derived and presented diagrammatically. Earnings subsidies are described in earnings space, wage subsidies in wage space, and income subsidies in income space. The various types of subsidies can be translated in terms of other spaces and more complex proposals can be decomposed into their constituent parts in this geometric approach. By varying entry points, exit points, and marginal rates or by combining pure wage, earnings, and income subsidies the formulation of an infinite number of complex combination subsidy plans is possible. Empirical models must now be developed to determine the effects of subsidies on both the subsidized and the unsubsidized.

NTIS PB253952/AS; PRICE CODE: A03; 48 PAGES

- 1-017 A DIFFUSION ANALYSIS OF AFDC PARTICIPATION**

Peter M. Greenston and C. Duncan MacRae
The Urban Institute
Washington, D.C.

Contract L-73-4

July 1973

Descriptors: GOVERNMENT PROGRAM IMPACT; AID TO FAMILIES WITH DEPENDENT CHILDREN; INFORMATION; PROGRAM PARTICIPATION; LABOR SUPPLY; SOCIODEMOGRAPHIC CHARACTERISTICS; MODELS

This study developed a model to explain growth in Aid to Families with Dependent Children (AFDC) and to forecast changes by focusing on the implicit diffusion of information (about the AFDC program) from participants to nonparticipant eligibles throughout the community. The number of eligibles was hypothesized to be a function of economic and demographic variables, and an estimate of this number was derived from the model.

The model was evaluated by forecasting, for the 12 States where most of the growth occurred, the number of participants from 1961 to 1972 using estimated coefficients, the observed exogenous variables, and a 1960 initial condition. The forecast for participation in 1973-75 was conditional upon the forecasts made for the exogenous variables.

The forecasts caused some skepticism, because eligibility is essentially based on a time trend, while in some States participation oscillated contrary to historical data. To deal with this, a system of structural equations describing the interaction between AFDC eligibility and labor supply estimated monthly or quarterly should be developed.

NTIS PB253711/AS; PRICE CODE: A03; 37 PAGES

- 1-018 INFORMATION CONTROL IN PRIVATE EMPLOYMENT**

Jane H. Yurov
Washington, D.C.

Purchase Order B-9-M-5-0671

September 1974

Descriptor: DISCLOSURE OF INFORMATION; WORKER ASSESSMENT; EMPLOYER PRACTICES AND POLICIES; LEGAL FRAMEWORK

This study examined the development of legislative protections of individual privacy and specifically protection for employees in the private sector, in light of the Department of Labor's concern to minimize encroachments on individual privacy while retaining information essential for decision-making from employers' records about applicants and employees.

A review of the Constitution and the relevant legislation showed that, if there is a legal basis for an individual's interest in controlling information about himself or herself, it is an individual liberty, whereas the employer's interest in collecting such information is a property interest. The review pointed out that the Constitution does not reach the conflict of interests, and that the interests in privacy do not become a right unless recognized in law. It then pointed out that the Supreme Court has recognized a Constitutional right of privacy in specific circumstances.

Options for protecting the interests (rights) of private employees included: (1) Withholding Federal contracts and grants from employers not in compliance with the law; (2) establishing a code of Fair Information Practice for private employment or a Federal Privacy Board to oversee the gathering and disclosure of information; and (3) tort law respecting defamation, trespass, assault, emotional distress, and unauthorized use of intangible property. The study disclosed that some companies were undertaking self-regulation, but not much was known about the details or effectiveness of that approach, and that some Federal regulations amounted to a kind of self-regulation for the programs to which they applied. It was suggested that the Department of Labor might establish a task force to explore the dilemma of how to recognize employers' legitimate needs for personal information about workers while protecting employees from the use of irrelevant, prejudicial, and subjective personal information.

NTIS PB256239/AS; PRICE CODE: A06; 104 PAGES

1-019 LAND RECLAMATION REQUIREMENTS AND THEIR ESTIMATED EFFECT ON THE COAL INDUSTRY

*Morris Goldstein and Robert S. Smith
U.S. Department of Labor/ASPER
Washington, D.C.*

January 1975

Descriptors: MINING; ECOLOGY; LAWS, LEGISLATION; PRODUCTION; GOVERNMENT PROGRAM IMPACT; EMPLOYMENT; ECONOMIC ANALYSIS AND ECONOMETRICS

This paper develops a model of demand and production of the bituminous coal industry to simulate the output and employment effects of land reclamation requirements in strip mining for 1971, holding constant all other variables affecting coal mining. Its purpose is to estimate only the induced sectoral changes in output and employment (which is of great concern to policymakers) and not to evaluate the Pareto efficiency of the reclamation requirements.

The main conclusion is that a requirement to return strip-mined land to its appropriate original contour and vegeta-

tive cover would have only a slight effect on either sector of the industry.

The most likely range of reclamation costs and demand elasticities suggests that strip-mining output and employment would have decreased from 1 to 6 percent in 1971 (in relation to actual 1971 values) had reclamation been required then; the best estimate is a 2.3 percent decline. At the same time, employment and output would have increased in underground mining, so that total coal output would have remained almost constant while total coal employment would have risen slightly.

The probable impact of the Seiberling Amendment, which would tax strip-mined coal much more heavily than underground coal, is more substantial. It is estimated that this Amendment would have caused output and employment in strip mining to decrease (in 1971) by 12-25 percent, aggregate coal output to decline by 2-3 percent, and aggregate employment in coal mining to increase by 3-8 percent.

NTIS PB282421/AS; PRICE CODE: A03; 39 PAGES

1-020 ALTERNATIVE MODELS OF LABOR'S SOCIAL OPPORTUNITY COST

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Philadelphia, Pa.*

Purchase order B-9-M-6-0482

August 1975

Descriptors: UNEMPLOYMENT INSURANCE; ECONOMIC ANALYSIS AND ECONOMETRICS; EFFECTIVENESS OF PROGRAMS; EMPLOYMENT AND TRAINING POLICY

This study examined the difficulties of calculating—for times of full employment—labor's social opportunity cost (SOC), defined as the decline in output of the competitive sector of the economy that occurs when the expansion of government programs for employment and training lure workers into the monopolistic sector, where unemployment is declining. Given large differences in the unemployment rate among groups of workers, however, the SOC must be corrected for the ease of substitution between employed and unemployed workers in the same occupation and between employed workers in different occupations, the type of analysis performed (static equilibrium or dynamic process), the degree to which unemployment is structural, and the existence of a competitive subsector in the economy to serve as a yardstick.

The analysis used a two-sector (monopolistic vs. competitive) model and derived an easily measured formula for labor's social opportunity cost. The SOC cost was shown to be an approximate function of the unemployment rate and the liberality of unemployment compensation in the monopolistic sector.

NTIS PB256279/AS; PRICE CODE: A03; 47 PAGES

1-021 THE EFFECTS OF WAGE AND PRICE CONTROLS ON STRIKE ACTIVITY

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Honolulu, Hawaii*

Purchase order B-9-M-5-2623

December 1975

Descriptors: COLLECTIVE BARGAINING; STRIKES; WAGE-PRICE CONTROLS

This study attempted to estimate the impact of the imposition of wage and price controls and the impact of their removal on the frequency of industrial strikes in the United States. Strike activity that would have occurred in the absence of the policy was estimated from data on recent developments in bargaining theory and strike activity. Economic variables such as the rate of unemployment, the expected rates of change in wages and prices, and the lagged ratio of profits to wages were used to explain the variability in strike activity. The model used four simultaneous equations to determine the number of strikes and the rates of change in wages, consumer prices, and the private nonfarm GNP deflator. The equations pertaining to the determinants of the rates of change in wages and prices relied on past behavior of wages, productivity, and capacity utilization to explain inflation.

The initial two phases of the incomes policy were found to have resulted in a reduction in the number of industrial strikes by an average of 126-214 strikes per quarter. The effects of the following two phases of the policy were ambiguous. The increase in strikes in 1974 was the result of the controls program, and not of its termination.

NTIS PB256269/AS; PRICE CODE: A03; 50 PAGES

1-022 THE EFFECTS OF DIRECT TAXES AND OTHER FACTORS ON MONEY WAGE CHANGES IN U.S. MANUFACTURING

Lester D. Taylor, Stephen J. Turnovsky, and Thomas A. Wilson
University of Arizona
Tucson, Ariz.

Purchase order B-9-M-6-0972

March 1976

Descriptors: UNEMPLOYMENT/INFLATION TRADEOFF; METHODOLOGY; MANUFACTURING; TAXES; WAGES

This study analyzed the impact on wage changes in manufacturing of the progressive Federal income tax schedule. It developed and tested two versions of a model that related the change in money wages, as measured by straight-time average hourly earnings in 2-digit manufacturing industries, to: (1) Unemployment and profits; (2) changes in the Consumer Price Index; (3) changes in Federal income tax rates; (4) changes in the social security tax rate; (5) the spillover effects from other industries (as measured by the ratio of average earnings in the industry to the average for all manufacturing); and (6) wage drift. It also employed an expanded Phillips curve model.

It used quarterly observations covering 1955-75 for all 2-digit manufacturing industries except ordinance, plus averages for durables, nondurables, all manufacturing, and the 3-digit motor vehicles industry. These data were weighted by employment data from the Bureau of Labor Statistics (BLS) on 25,000 collective bargaining contracts in effect between 1947 and mid-1975.

The use of weighted data increased the explained variance, and the authors hoped their results would persuade

the BLS to improve the information base. Direct taxes definitely affected the pace of wage changes, but the analysis suggested using data at much lower levels of aggregation. Changes in the CPI and in taxes exerted independent influences on wage changes and provided limited support for the assumption that unions in concentrated industries bargain for a real after-tax wage rate. The results provided mixed support for conventional Phillips curve models of wage determination. The findings strongly supported the presence of spillover, but as a wage drift phenomenon rather than as a factor in bargaining.

NTIS PB263947/AS; PRICE CODE: A05; 81 PAGES

1-023 GOVERNMENTALLY-IMPOSED STANDARDS: SOME NORMATIVE AND POSITIVE ASPECTS

Russell F. Settle and Burton A. Weisbrod
University of Wisconsin
Madison, Wis.

Purchase order B-9-M-6-0569

June 1976

Descriptors: OCCUPATIONAL SAFETY AND HEALTH; GOVERNMENT POLICIES; COST-BENEFIT ANALYSIS; ECONOMIC DEVELOPMENT

This paper discusses a number of normative and positive aspects of the concepts underlying governmentally imposed standards.

The normative analysis discusses the circumstances under which government-imposed standards should be favored over other policy instruments, comparing health and safety standards with those in tax and information-provision programs. Standards may be preferred on cost or equity grounds if not efficiency grounds.

The positive analysis focuses on the conditions under which standards are likely to be favored over other policy instruments. The main implication is that, regardless of the normative desirability of standards vis-a-vis other policy instruments, they may be expected to continue for several reasons (both supply and demand).

Further research is recommended on the economic costs and benefits of specific government standards, and on the relationship between the state of economic development of a country and its demand for safety and health. So is obtaining information in an accounting framework on the extent of the influence of standards and the rate of growth of their effects.

NTIS PB256276/AS; PRICE CODE: A04; 53 PAGES

1-024 WAGE AND PRICE DYNAMICS IN THE UNITED STATES AND THE IMPACT OF SOCIAL SECURITY REFORM

John Geweke
Madison, Wis.

Purchase Order B-9-M-7-2366

September 1977

Descriptors: GOVERNMENT PROGRAM IMPACT; SOCIAL SECURITY ACT; TAXES; PRICES; MANUFACTURING

The objective of this study was to estimate the impact on wholesale prices in manufacturing of any change in social

security payroll contributions. An aggregate wholesale price equation for manufacturing, including measures of input prices, the after-tax wage rate, and the payroll tax rate, was estimated which policymakers could use to predict the price impact of changes in the social security tax rate.

It used data for 1955-76 on average hourly earnings in manufacturing excluding overtime and two measures of wholesale prices (the daily basic commodity prices for raw materials and products close to the initial production stage and the crude materials index) both of which underrepresent energy prices in the mid-1970's.

The eventual impact on wholesale prices of a 1 percent change in wage rates was 0.8 percent in the same direction, not fully realized for 2 years, but the impact differed among industries. The eventual price impact of a change in social security taxes amounting to 1 percent of the nominal wage was about 0.7 percent in the opposite direction if the nominal, after-tax wage was unaffected by the change. If the change in social security affected after-tax wages, the change in wages produced a price change in the same direction about 80 percent the size of the wage change. However, the equation used excluded income tax rates. These equations were invalid during the 1971-74 economic stabilization program and its aftermath, but again became valid in the second quarter 1976.

The author concluded that since output prices in all industries would not be affected in the same way, any drastic increase in social security taxes should be imposed gradually to avoid sudden price distortions.

NTIS PB273266/AS; PRICE CODE: A05; 84 PAGES

1-025 AN ANALYSIS OF A WAGE SUBSIDY PROGRAM

Michael D. Hurd and John H. Pencavel
Stanford University
Stanford, Calif.

Contract J-9-M-6-0156

May 1978

Descriptors: WAGE SUBSIDIES; INCOME MAINTENANCE; ECONOMIC ANALYSIS AND ECONOMETRICS; FAMILIES; GOVERNMENT PROGRAM IMPACT

This report explores the effects of a wage subsidy program by using a utility function to determine how much would be required to bring a subpoverty family up to the poverty line in light of family composition and the proposed changes in wages and nonlabor income. Data are from the 1967 Survey of Economic Opportunity.

Family composition has a very important effect on the required wage subsidy with children appearing to require much larger transfers or wage subsidies to reach specific utility levels than suggested by official poverty income definitions. Additions to nonlabor income allow substantial reductions in the wage subsidy.

The proposed utility-based wage subsidy program is compared with three other wage subsidy programs, all of which could be based on directly observable behavior rather than on estimates of a hypothesized utility function. Results give some indication of what would be necessary under a combination income transfer and wage subsidy policy.

NTIS PB284696/AS; PRICE CODE: A05; 92 PAGES

1-026 THE ECONOMIC COST IMPACT OF THE LABOR PROTECTION PROVISION OF SECTION 13(C) OF THE URBAN MASS TRANSPORTATION ACT OF 1964 PART I: EXECUTIVE SUMMARY, DESCRIPTION OF STUDY, METHODOLOGY, ANALYSIS AND CONCLUSIONS

Frederic B. Siskind and Ernst W. Stromsdorfer
U.S. Department of Labor/ASPER
Washington, D.C.

May 1978

Descriptors: COST-BENEFIT ANALYSIS; REGULATIONS; UNIONS; URBAN MASS TRANSIT; URBAN AREAS; COLLECTIVE BARGAINING; LAWS, LEGISLATION; TRANSPORTATION

This study identified, described, and attempted to estimate kinds of costs (particularly those imposed on management) that might occur as a result of Section 13(C) of the Urban Mass Transportation Act of 1964.

First, the study used a mail questionnaire to estimate the frequency and size of all 13(C) cash payments made to transit employees during the years 1964-75. Second, it interviewed management and labor officials of 13 transit systems to evaluate the probable size and extent of: (1) Increased wage and fringe benefit costs in takeover situations; (2) redundant worker costs; (3) uncertainty added to the planning process; (4) costs of delays in signing 13(C) agreements; and (5) negotiation, arbitration, litigation, and recordkeeping costs.

The mail survey showed conclusively that direct 13(C) cash payments to employees were negligible (\$6,893) relative to the multi-billion dollar UMTA capital grant program. The interviews suggested that uncertainty regarding the scope of 13(C) protections and possible future litigation and cash payments were the major costs imposed by section 13(C) on management. Seven systems experienced significant negotiating costs for at least one 13(C) agreement. One system (both management and labor) experienced large arbitration, litigation, and recordkeeping costs. In five systems the major labor relations impact was to assure the continuation of collective bargaining rights of employees after public takeovers.

NTIS PB279918/AS; PRICE CODE: A08; 156 PAGES

PART II: APPENDICES, SUMMARIES OF THE 13(C) EXPERIENCE IN THE THIRTEEN TRANSIT SYSTEMS INTERVIEWED FOR THE STUDY

Frederic B. Siskind and Ernst W. Stromsdorfer

NTIS PB280078/AS; PRICE CODE: A12; 275 PAGES

1-027 AN EXPLORATORY STUDY TO DETERMINE THE NEED FOR A PROGRAM OF RESEARCH ON THE POLICY IMPLICATION OF ILLEGAL IMMIGRATION FOR YOUTH EMPLOYMENT IN THE UNITED STATES

Arlene P. Scanlon
D.A. Lewis Associates, Inc.
Clinton, Md.

Contract J-9-M-8-0117

March 1979

Descriptors: ALIENS; YOUTH; EMPLOYMENT

This study assessed the knowledge of the impact of illegal immigration on youth unemployment and analyzed its policy relevance. In order to accomplish these objectives, three methods of data collection were employed: source identification and review; interviews with key theoreticians, scholars, and public administrators; and the coordination of information on the impact of illegal immigration on youth labor markets with on-going research and related current events. It was found that information on the impact of illegal alien immigration on youth unemployment is inadequate; very few "hard data" are available and their interpretation is often contradictory. There was indirect evidence of such impact. The age, skills characteristics, and geographic concentration of minority youth and illegal immigrants were similar, and they worked in similar industries

and services, but there was some evidence of dual labor markets for them within industries. Data on non-Mexican illegal immigrants in the cities of the North and East were particularly weak for analyzing their impact on youth labor markets.

Projections of the youth labor force indicate that the youth population and youth unemployment will be in decline by 1985 and that there may be a labor shortage creating a demand for alien labor by that time. However, racial minority youth population and unemployment rates are not expected to decline in the same way. It was concluded that there is a need for a program of research to clarify the impacts of illegal alien workers on racial minority youth. The proposed research included analysis of residential survey data, sample survey and case studies of impacted industries and services, statistical impact studies, and futuristic policy-oriented studies of impacts of alien immigration on youth unemployment.

NTIS PB294015/AS; PRICE CODE: A05; 89 PAGES

2A. LABOR DEMAND AND SUPPLY

2-001 AN ECONOMETRIC MODEL OF THE LOW-SKILL LABOR MARKET

R. W. Crandall, C. Duncan MacRae, and L. Y. L. Yap
The Urban Institute
Washington, D.C.

Contract L-73-4

August 1973

Descriptors: LABOR DEMAND; LABOR SUPPLY; ECONOMIC ANALYSIS AND ECONOMETRICS; UNSKILLED WORKERS

This model of the demand and supply of labor in low-skill occupations by State assumed that demand per unit of output was a function of the low-skill wage rate and the industrial composition of output, and that a family's supply of labor was a function of the low-skill wage, other income per family, and the demographic composition of primary and secondary individuals.

The parameters of the model were estimated with data aggregated from the March 1970 Current Population Survey and with other published data for 1969 for 43 States and groups of States by a two-stage least squares method which accounted for nonlinearities in the structural equations of the model.

NTIS PB253625/AS; PRICE CODE: A03; 37 PAGES

2-002 ACCEPTANCE WAGES OF THE LONGER-TERM UNEMPLOYED

Arnold Katz
Center for Naval Analyses
Arlington, Va.

Contract L-72-86

February 1974

Descriptors: DURATION OF UNEMPLOYMENT; LABOR MARKET BEHAVIOR; WAGES; JOB SEARCH

This study described the results of an empirical test of the hypothesis that workers' asking wages decline with length of unemployment. Job search theory was explained in terms of investment theory. Regression estimates of length of unemployment, given a fixed length of previous unemployment, were made for a sample drawn from a national household survey and controlled for individual characteristics. A percentage per month decline in acceptance wages was computed for an unemployed person with mean values of the personal characteristics that are unambiguously exogenous to job search decisions during unemployment. Sources of variability in acceptance wage behavior about the mean were analyzed.

The probability of reemployment was found to vary with the length of unemployment and the acceptance wage of an unemployed worker to determine probability of finding a favorable job offer. The difference between the results of this study and previous findings was explained by differences in population samples and least squares bias.

NTIS PB253623/AS; PRICE CODE: A03; 40 PAGES

2-003 THE CHALLENGE OF DUAL AND RADICAL THEORIES OF THE LABOR MARKET TO ORTHODOX THEORY

Glen G. Cain
University of Wisconsin
Madison, Wis.

Contract L-73-128

January 1975

Descriptors: ECONOMIC ANALYSIS AND ECONOMETRICS; DUAL LABOR MARKETS; LABOR ECONOMICS; POVERTY; EDUCATION; EMPLOYMENT AND TRAINING POLICY

This analysis considered criticisms by dual-radical (D-R) spokesmen of the outcomes and processes in the labor market, such as the persistence of poverty and inequalities of income distribution, the failure of education and training programs, the use by employers of educational and training criteria for making "irrational" and "discriminatory" hiring decisions, the effects of and explanation for discrimination in the labor market, the roles of monopolies and unions, the role of psychological variables, and the alienation of the American worker. D-R spokesmen have challenged conventional theories and methods, such as the theories of "job competition," "wage competition," the dual labor market, and the radical, segmented and/or stratified labor market. They have advocated leftist policies concentrating on the demand side of the market, pre-labor market "conditioning" of the "consciousness" of people, and more worker control of their work.

The study presented an historical perspective of D-R ideas and the neoclassical response to the D-R challenges. It concluded that the D-R's theoretical and methodological criticisms of the neoclassical theory were not substantial, and often misguided. They did not offer a theory of the labor market that could replace neoclassical theory, but modifications or additions to it such as the ideas of the endogenous determination of attitudinal variables among workers and the institutional dimensions of internal labor markets. Nevertheless, the interaction between theories has had implications for policy and research in areas such as the nonwage dimension of employment, occupational promotion paths, the role of psychological variables in workers' performance, and benefit-cost analyses of governmental intervention.

NTIS PB253712/AS; PRICE CODE: A06; 133 PAGES

2-004 ECONOMETRIC STUDIES OF LABOR DEMAND AND THEIR APPLICATION TO POLICY ANALYSIS

Daniel S. Hamermesh
U.S. Department of Labor/ASPER
Washington, D.C.

June 1975

Descriptors: ECONOMIC ANALYSIS AND ECONOMETRICS; LITERATURE REVIEW; LAWS, LEGISLATION; TAXES; UNEMPLOYMENT; SOCIAL SECURITY ACT; LABOR DEMAND; WAGE SUBSIDIES; UNEMPLOYMENT INSURANCE; FRINGE BENEFITS

This study summarized the econometric literature on the demand for labor, especially estimates of the wage and output elasticities of employment demand.

The parameters of these estimates of output-price and price-wage elasticities were then used to estimate the magnitude of the substitution and scale effects on employment of a change in wages resulting from a tax on, or a subsidy of, wages. The best estimates of, the four-quarter and long-run substitution elasticities were -.15 and -.50. The estimated employment elasticity resulting from changes in scale induced by a wage change was -.13 after four quarters and the long-run elasticity was -.44, although this parameter was not very helpful in view of the usual assumption of full employment (and thus no possible change in scale) in the long run.

The estimated parameters were then applied to illustrate the employment effects of four policy changes under discussion recently: (1) An increase in the rate of employers' contributions to old-age, survivors, disability, and health insurance; (2) a tax credit on the earnings of any employment in excess of the previous year's employment; (3) an increase in the ceiling on taxable earnings for unemployment insurance; and (4) a tax on group health insurance for laid-off workers who become unemployed. The estimates illustrated how the parameters could be applied to any proposal that involves the equivalent of a tax on or subsidy of wages.

NTIS PB262879/AS; PRICE CODE: A03; 35 PAGES

2-005 ON THE STRUCTURE OF UNEMPLOYMENT IN GREAT BRITAIN AND THE U.S.

David Metcalf
Princeton University
Princeton, N.J.

Purchase order B-9-M-5-2980

September 1975

Descriptors: UNEMPLOYMENT; SOCIODEMOGRAPHIC CHARACTERISTICS; GEOGRAPHIC LOCATION; PUBLIC EMPLOYMENT SERVICE; INTERNATIONAL COMPARISONS; GREAT BRITAIN

This study compared three aspects of unemployment in the United States and Great Britain: (1) Flows into unemployment and the duration of unemployment, which determine the unemployment rate, and their magnitudes over the cycle and across demographic and occupational groups; (2) the stability of the structure of unemployment across geographic areas and the factors associated with area unemployment differentials; and (3) the relative success of the employment service (ES) and the cyclical behavior of certain ES performance indicators.

Differences in the duration of unemployment were said to be the chief explanation of differences in the unemployment rate, and study was recommended of the factors that might influence the duration of unemployment. Regarding the geographic distribution of unemployment, the British determinants were the demographic composition of the local labor force, the structure of local industry, and some measure of deficient demand. However, the British interarea wage structure has not responded to persistent differentials in local unemployment rates—a phenomenon that may be traced to national wage bargaining. In the United States, demographic composition appeared to be less important than in Great Britain, and industry structure somewhat more important, with a weak positive relation between local wages and local unemployment suggesting that plant bargaining may reduce urban unemployment. In both countries,

interarea differences in placement rates were caused by factors beyond the ES control.

NTIS PB256798/AS; PRICE CODE: A05; 79 PAGES

2-006 THE DETERMINANTS OF EARNINGS OVER THE LIFE CYCLE

Lee A. Lillard and Jacob Mincer, et al
National Bureau of Economic Research, Inc.
New York, N.Y.

Contract L-73-135

December 1975

Descriptors: EARNINGS; LIFE CYCLE

This report is a summary of research projects conducted by the National Bureau of Economic Research, Inc., during the second year of the U.S. Department of Labor contract L-73-135. Appended to this report are copies of six research papers on which the report is based.

The major goal of the research is to understand better the determinants of individuals' lifetime earnings, using longitudinal data. Family background, measured ability, formal schooling, age, job training, and job mobility are investigated. Both Lillard's and Mincer's studies, although they approach in different ways the structural relationships between observed earnings and the determining variables, find that the addition of information about family and personal background and more detailed job histories adds considerably to understanding and predicting of pattern and distribution of labor market earnings and labor supply.

NTIS PB255000/AS; PRICE CODE: A17; 390 PAGES

2-007 SIGNALLING AND SCREENING

Michael Spence
Stanford University
Stanford, Calif.

Purchase order B-9-M-5-2648

January 1976

Descriptors: EDUCATIONAL ATTAINMENT; ASSESSMENT OF APPLICANTS AND TRAINEES; PRODUCTIVITY; PERSONNEL ADMINISTRATION; RETURNS ON EDUCATIONAL INVESTMENT; ECONOMIC ANALYSIS AND ECONOMETRICS

This study surveyed signalling and screening models of the labor market, which involve the use of proxies or surrogates (education, for example) to measure a worker's productive capabilities. It reviewed three types of models: signalling, rationing, and human capital. In the signalling models, education does not contribute to productivity and jobs do not affect productivity; education distinguishes people, thereby redistributing rather than increasing product or income. In the human capital models, different levels of education reflect different productivities and each person invests in the correct amount of education, with differential costs determining their investment. In the rationing models, education is used to ration high productivity jobs to the groups with lower costs of education. The three models are similar in resource allocation, but differ in the welfare implications of that allocation. The ex-ante quality screening aspects of licensure resemble in some ways the signalling and rationing models.

To understand the performance of the market, the study examined two cases: one when there is perfect information, and the other when the salary schedule is manipulated to improve the efficiency of the investment in schooling. One implication of the results is that people with lower schooling costs are optimally paid more than their productivity; those with higher costs, less.

With respect to licensing, the desirability of regulation and the appropriate level of the minimum quality standard rose with the extent to which consumers underestimated quality differentials in the licensed field and, with the right kind of regulation, the greater consumers' underestimates, the larger the fraction of licensees at minimum levels.

A model incorporating the three types of models and the simple rationing model were used to illustrate the use of the latter to augment returns to the signal in the market without rationing. The rationing model was found worthy of further research, both theoretically and empirically.

However, the author concluded, if it is desirable to stop the signalling process, collective action would be needed, because incentives for signalling come from the top end of the spectrum down.

NTIS PB257065/AS; PRICE CODE: A05; 76 PAGES

2-008 THE INFLUENCE OF FERTILITY ON THE LABOR FORCE BEHAVIOR OF MARRIED WOMEN

*T. Paul Schultz
Yale University
New Haven, Conn.*

Purchase order B-9-M-5-1315

April 1976

Descriptors: WOMEN; LABOR FORCE PARTICIPATION; LIFE CYCLE; FERTILITY

This study estimated the determinants of labor market behavior of married U.S. women. Fertility was treated as jointly and simultaneously determined with current labor force behavior of wives. Permanent market wage rates of the husband and wife were indirectly imputed for all husbands and wives, as current wages of wives in particular reflect past fertility and labor market choices.

The simultaneous equation estimates of the elasticity of hours worked in the market with respect to the wife's wage were greater than the ordinary least squares (OLS) estimates for young white wives (18-24 years). At later ages, the difference between OLS and instrumental variables estimates of own wage elasticities was less marked for whites, though it persisted for black wives. The simultaneous equation estimates of the long-run responsiveness of hours to fertility were diminished somewhat for the 18-24 age group in comparison with the standard short-run OLS estimates but increased substantially for older groups of wives of both races. The rising trend of completed fertility among women over age 40 should dampen any rising secular trend in labor force participation among these groups.

Current information regarding actual and expected trends in fertility should be employed to improve both short-run and long-run labor force projections for married women, the most rapidly growing and volatile segment of the U.S. labor force.

NTIS PB268527/AS; PRICE CODE: A05; 94 PAGES

2-009 THE WELFARE IMPLICATIONS OF THE UNEMPLOYMENT RATE

*Michael D. Hurd
Stanford University
Stanford, Calif.*

Contract J-9-M-5-0060

June 1976

Descriptors: UNEMPLOYMENT; DURATION OF UNEMPLOYMENT; BLACK/WHITE; FAMILIES; INCOME

This study attempted to estimate the cost of unemployment from the point of view of the unemployed, which is called the welfare cost of unemployment or loss due to unemployment. Using labor supply functions estimated with cross-section data, the compensated labor supply functions were formed, and the average cost of unemployment in each year since 1966 by race, family position, and duration of unemployment was calculated. Using data from the Bureau of Labor Statistics, the number of different people who were unemployed in each year by race, family position, and duration of unemployment was estimated. Measures of the total welfare loss or the total compensating variation were calculated by aggregating in each year.

The welfare loss due to unemployment increased sharply with the duration of unemployment. Because high unemployment rates reflected mainly long spells of unemployment rather than increases in the number of unemployed, the aggregate loss increased sharply with the unemployment rate.

NTIS PB261083/AS; PRICE CODE: A03; 41 PAGES

2-010 THE ESTIMATION OF NONLINEAR LABOR SUPPLY FUNCTIONS WITH TAXES FROM A TRUNCATED SAMPLE

*Michael D. Hurd
Stanford University
Stanford, Calif.*

Contract J-9-M-5-0060

June 1976

Descriptors: LABOR SUPPLY; WOMEN; MEN; MATHEMATICAL MODELS; TAXES; WAGES

This paper addressed two problems in the estimation of labor supply functions: taxes and truncated samples (that is, most data do not measure desired hours of work, which may be negative, and most measure wages only for those who work). Using data from the 1966 Survey of Economic Opportunity, the researcher developed and tested a statistical model that accounted for income taxes and for the fact that many people in the sample would not work even if their offered wage was raised. A secondary objective of the study was to remove a strong assumption that supply depends on the wage in any simple way.

First, the model was used to estimate the labor supply function of white wives. It was found to be nonlinear over the range of observed wage rates; it was S-shaped and therefore not even quadratic in the wage rate. These findings generally conformed to *a priori* views and to theory; wives with children worked less than wives without children; wives between the ages of 55 and 64 worked less than younger wives; and the income-compensated substitution

effects were almost always positive. The influence of nonlabor supply was zero.

When the labor supply function was estimated for other groups in the sample, it was fairly elastic over at least part of the wage axis for all groups except single male heads of households, but neither the slopes nor the elasticities were even approximately constant.

NTIS PB261078/AS; PRICE CODE: A04; 71 PAGES

2-011 A SIMULTANEOUS EQUATION MODEL OF THE YOUTH LABOR MARKET

Robert S. Goldfarb and Anthony M. J. Yezer
George Washington University
Washington, D.C.

Contract J-9-M-5-0045

September 1976

Descriptors: YOUTH; LABOR SUPPLY; WAGES; METHODOLOGY

This study analyzed both the supply and the demand for teenage labor, using an original model with both a specific and a general utility function, and considered the appropriate measurement of teenage wages and hours.

It was found that elasticities of substitution for teenagers of other classes of labor when teenage wage rates rise were generally low and did not differ markedly across industries, implying that differences in industry demand cannot be expected to produce large differences in substitution.

Using hours worked in the census survey week to measure annual hours was found to provide underestimates. The solution was use of hours worked in the survey week by individuals in the highest weeks worked categories to estimate weekly hours for some of the lower weeks worked group.

Participation of teenage groups in the labor force was remarkably high. When the data from the 1/100 Census Public Use Sample for teenagers were separated by type of living arrangement (living with parents, head of household, or away at school), the responses to wage rates differed. The labor supply of male heads of households was strongly affected by wages. Among teenagers living with parents, the labor supply of females was responsive to wage rates, but that of males responded only for the older group. It was also found that older teenagers' schooling decisions were affected by current wage rates, with high wages drawing them away from school. Further, increases in minimum wages resulted in relatively small declines in teenage employment. Finally, higher wages increased the teenage labor supply; the relationship had a positive slope over the entire or the relevant range, with some evidence of a backward bend at higher wages.

NTIS PB263372/AS; PRICE CODE: A08; 170 PAGES

2-012 INDUSTRIAL STRUCTURE, THE FLEXIBILITY OF WORKING HOURS AND WOMEN'S LABOR FORCE PARTICIPATION

Alan G. King
University of Texas, Population Research Center
Austin, Tex.

Purchase order B-9-J-6-3891

December 1976

Descriptors: LABOR FORCE PARTICIPATION; WOMEN; FAMILIES; INDUSTRIAL DISTRIBUTION

This paper argues that the importance of a woman's time in child caring and other family responsibilities places a premium on her ability to schedule market work around these activities. It tests the hypothesis that the variability in the distribution of hours of work constrains a woman's ability to coordinate these activities and thereby affects her labor force participation. The distribution of hours of work from which a woman can choose is assumed to be dictated by the industrial structure of production. The hypothesis is tested, using 1970 census data for a sample of Standard Metropolitan Statistical Areas (SMSA's), and is found to have validity among mothers with preschool children, a group for whom this reasoning seems highly appropriate.

NTIS PB262328/AS; PRICE CODE: A02; 24 PAGES

2-013 ESTIMATION OF A DYNAMIC MODEL OF LABOR SUPPLY: THE CASE OF OLDER MALES

Robert Cotterman
Los Angeles, Calif.

Purchase order B-9-M-6-3375

June 1977

Descriptors: ECONOMIC ANALYSIS AND ECONOMETRICS; LABOR SUPPLY; RETIREMENT; WAGES; NATIONAL LONGITUDINAL SURVEYS; OLDER WORKERS; MEN

The first chapter of this report provides a theoretical analysis of a dynamic labor supply model and presents a number of comparative dynamics results, with particular emphasis on the labor supply effects of changes in the initial stock of assets, the level of wage rates, the rate of wage growth, and the length of the horizon. A different rates of wage growth may explain a portion of differences in labor supply and retirement behavior among older men.

The second chapter provides an econometric framework for estimating a dynamic labor supply model using panel data.

The third chapter presents empirical results estimated on a subsample of older men drawn from the National Longitudinal Surveys. These results include estimates of the parameters determining participation probabilities, weekly hours of work, and hourly wage rates.

NTIS PB271991/AS; PRICE CODE: A04; 77 PAGES

2-014 FINAL REPORT: STUDIES IN DEMAND FOR LABOR

Richard B. Freeman, James L. Medoff, and Kim B. Clark
Harvard University
Cambridge, Mass.

Contract J-9-M-6-0094

August 1977

Descriptors: ELASTICITY OF LABOR DEMAND; UNION IMPACT; ECONOMIC ANALYSIS AND ECONOMETRICS; OCCUPATIONAL STRUCTURE; EMPLOYMENT; BLACK/WHITE; AGE DIFFERENCES; MALE/FEMALE

This research examined four aspects of the demand for labor in the United States: the effect of fixed coefficient shifts in demand on employment; the elasticity of demand in times series models; the elasticity of substitution between different types of workers; and the effect of trade unionism on demand. The report of the research included two papers on each of these topics.

The researchers found that the labor requirements model accounted for much of the change in occupational employment in the United States but that substitution effects also mattered; demand for production workers had a nonnegligible elasticity of -0.5 to -0.6 in manufacturing; that younger and older workers, male, female, black and white workers had identifiably different elasticities of substitution; and that unionism increased layoffs and reduced substitution.

In combination, the studies proposed new models for analyzing labor market dynamics and raised questions that helped to reorient programs designed to alleviate unemployment.

NTIS PB279057/AS; PRICE CODE: A16; 363 PAGES

2-015 LABOR FORCE RESPONSE OF CAREER VS. NONCAREER MARRIED WOMEN TO THE UNEMPLOYMENT RATE

Paula E. Stephan
Georgia State University
Atlanta, Ga.

Purchase order B-9-E-7-2025

September 1977

Descriptors: WOMEN; LABOR FORCE PARTICIPATION; UNEMPLOYMENT; CAREER PATTERNS; WORK ATTITUDES

This paper examines the hypothesis that job experience and a commitment to the labor force makes married women who have a career (defined as married women who have been working 70 percent or more of the time since marriage) unresponsive to changes in the local employment rate. The analysis uses the National Longitudinal Survey of mature women for 1972. Logit techniques are used to analyze the labor force participation of career vs. noncareer women.

It is found, under the "traditional" specification of the discouraged worker problem (which excludes experience), that career women as a whole are not discouraged while noncareer women appear discouraged, but the results differ for blacks and whites. The hypothesis that the amount of discouragement depends upon the amount of labor market experience is supported when experience is included with the unemployment rate in the interaction term. However, when experience is specified directly in the labor force participation equation, the coefficients of the local unemployment rate—and the above mentioned interaction term—are no longer significant.

NTIS PB280133/AS; PRICE CODE: A03; 42 PAGES

2-016 ASPECTS OF LABOR FORCE PARTICIPATION

Kim B. Clark and Lawrence H. Summers
Boston, Mass.

Purchase order B-9-M-8-1037

May 1978

Descriptors: LABOR FORCE PARTICIPATION; LABOR FORCE BEHAVIOR; LABOR DEMAND; LITERATURE REVIEW

This report examines the potential determinants of labor force participation that have appeared in the literature.

Part I examines the impact of such changes as fertility, marital status, and age structure on labor force participation. It finds that the changing age structure of the population has significantly affected aggregate participation, but the relative size of a cohort does not affect cohort participation rates.

Part II introduces a fixed coefficients index of demand, to measure shifts in demand caused by interindustry shifts in employment and to determine the extent to which changes in the composition of employment can explain trends in participation. Much of the postwar trend in participation rates is associated with changes in the industrial composition of employment, but may also affect demand through changes in relative wages.

In Part III, the effect of wealth and liquidity on participation is examined. Theoretical considerations imply that wealth has a negative, and liquidity a positive, effect on participation. However, time series data suggest that variations in aggregate participation are totally unrelated to variations in aggregate real wealth and that increases in the ratio of household liabilities to financial assets reduces rather than increases the participation rate.

With three other reports prepared under this purchase order (see index for the others), this analysis of data from the Current Population Survey indicates how employment and training programs can help alleviate unemployment.

NTIS PB291404/AS; PRICE CODE: A03; 49 PAGES

2-017 HETEROGENEITY AND STATE DEPENDENCE IN DYNAMIC MODELS OF LABOR SUPPLY

James J. Heckman
University of Chicago
Chicago, Ill.

Contract J-9-M-6-0108

May 1978

Descriptors: LABOR FORCE PARTICIPATION; WOMEN; LABOR SUPPLY PROJECTIONS; STATISTICAL ANALYSIS; LONGITUDINAL SURVEYS

This paper specifies and estimates a dynamic model of the labor force participation decisions of married women. The statistical model nests previous dynamic models of labor supply proposed in the literature as special cases of a more general model. An extensive empirical analysis of the dynamics of married female labor supply is presented for two groups of white women, aged 30-44 and 45-59 in 1968 and continuously married to the same spouse in 7 years of data drawn from the Panel Survey of Income Dynamics. Regressors used to estimate the model are a conventional list of variables.

The main conclusions are: (1) For older women there is evidence that recent labor market experience is a determinant of current participation decisions. (2) There is considerable evidence that the unobservables determining participation choices follow a first-order Markov process. (3) Dynamic models that neglect heterogeneity overestimate labor market turnover. (4) Models that neglect heterogeneity lead to biased estimates of the effect of all variables on labor force participation probabilities in models that include past participation as a determinant of current participation.

NTIS PB257331/AS; PRICE CODE: A04; 59 PAGES

2-018 LABOR FORCE PARTICIPATION: TIMING VS. PERSISTENCE

Kim B. Clark and Lawrence H. Summers
Cambridge, Mass.

Purchase order B-9-M-8-1037

January 1979

Descriptors: LABOR FORCE PARTICIPATION; MACROLEVEL ANALYSIS; LIFE CYCLE; LEISURE; LABOR ECONOMICS

This paper develops a model of life cycle labor supply and uses it to examine two hypotheses at the core of the controversy over the "classical" macroeconomic models. The first—the timing hypothesis—emphasizes the substitutability between hours of leisure in different periods, maintaining that transitory variations in wages and prices are the dominant source of movements in the labor force, as individuals "time" their participation to coincide with upturns in economic opportunity. The second—the persistence hypothesis—holds that employment experience raises the probability of future participation, so that long-run or permanent variations in opportunities dominate transitory movements.

The analysis of these hypotheses uses several sets of data to reach two main conclusions: (1) Participation decisions are not significantly affected by transitory movements in the basic determinants. In aggregate time series data, transitory variations in real wages and unexpected inflation were substantively and statistically insignificant. In the cross section data, long-run labor market conditions clearly dominated transitory development in explaining differences in participation across States. (2) Previous work experience has a sizable positive effect on participation. This conclusion was strongly supported by the cross section data, and received some support in the time series. Evidence from the 1940's implied that the World War II expansion had significant long-run effects on the participation of adult women. Thus, the expansion in aggregate demand appears to have significant long-term consequences for the size of the labor force and potential output even under the usual classical assumptions.

(For three other reports under this purchase order see the index.)

NTIS PB290752/AS; PRICE CODE: A04; 61 PAGES

2B. WORKERS' AND EMPLOYERS' ADJUSTMENTS

2-019 DIFFERENTIAL DRUG USE WITHIN THE LABOR FORCE

Carl D. Chambers
Narcotic and Drug Research, Inc.
Albany, N.Y.

Contract L-71-96

June 1971

Descriptors: DRUG USERS; LABOR FORCE; SOCIODEMOGRAPHIC CHARACTERISTICS; ATTITUDES; OCCUPATIONAL STRUCTURE

This study of the incidence and prevalence of legal and illegal drug use among members of different occupational groups presented the demographic characteristics and summary distributions of regular users within each group and explored the attitudes of members of each group toward drug use and drug users. Wide variations of attitudes and drug usage patterns were found among the occupational groups, except for farmers, among whom no regular drug use was detected.

NTIS PB253162/AS; PRICE CODE: A04; 65 PAGES

2-020 THEORIES OF SEARCH IN A LABOR MARKET

Kenneth Burdett
Northwestern University
Evanston, Ill.

Purchase order OAS 73-3654

October 1973

Descriptors: LABOR MARKET; JOB SEARCH; WAGE DIFFERENTIALS; MODELS

This study reviewed major developments in individual job search models, criticized their restriction to one side of the market, and explored difficulties in a full market approach. To develop a model of the full market approach, it made assumptions about the individual's objectives, the time allowed for search, the right to reconsider job offers, the individual's knowledge of the distribution of wage offers, the searcher's attitude toward risk, and the reservation wage (at which search stops or continues, depending on whether a job offer exceeds or falls short, and which depends on the relative value of unemployment compensation and the cost of search). Focusing on the distribution of wage offers in a given time, it considered the case of search with an unknown wage distribution, where the reservation wage property need not hold. The existence of several types of wage offer distributions was discussed as the basis for labor market models.

NTIS PB256647/AS; PRICE CODE: A04; 52 PAGES

**2-021 SELF-PERCEIVED SOCIAL VALUE AND
MORAL QUALITIES OF ONE'S WORK:
NEGLECTED SOCIAL DIMENSIONS FOR
QUALITY OF EMPLOYMENT INDICATORS**

*Albert D. Biderman and Thomas F. Drury
Bureau of Social Science Research, Inc.
Washington, D.C.*

Contract L-73-118

April 1974

Descriptors: QUALITY OF WORK; WORK ATTITUDES; SOCIAL INDICATORS; MEANING OF WORK

This study proposed measures of the impacts workers see their work having on others and the degree to which they feel their work has or lacks various moral qualities.

To the extent that these social and moral considerations enter importantly into workers' overall evaluations of their jobs, such measures would have significance from the conventional economic, individualistic, hedonistic, and behavioral perspectives underlying most quality-of-work indicators. Measures of the accord of jobs with these values could be interpreted in terms of aggregate or net social product or "psychic income" from work, and the distribution of these measures among components of the working population could also be subject to evaluation.

From the standpoint of society, moreover, such measures would constitute important social indicators in their own right; for example, they would provide a basis for analyzing the functioning of the occupational system and identifying problem areas within it. Furthermore, the concern for social indicators measuring "goods" and "bads" received by ultimate consumers has also tended to divert attention from the values placed on purposeful activity itself; it is a matter not only of what is won or lost, but also of how the game is played.

However, problems of theory and of measurement would arise because of the imperfect consistency of social organization and of associated moral codes.

NTIS PB256874/AS; PRICE CODE: A02; 15 PAGES

**2-022 INDICATORS OF THE RESPONSIVENESS OF
EMPLOYMENT SYSTEMS TO WORKERS'
NEEDS AND VALUES**

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Contract L-73-118

April 1974

Descriptors: QUALITY OF WORK; SOCIAL INDICATORS; WORK ATTITUDES

This paper proposes general criteria that social indicators of the quality of working life need to meet, indicates some specific criteria involving workers' needs and values, and makes some suggestions for the development of several possible social indicators.

There are at least four important considerations involved in the development and use of social indicators: that the purposes of social indicators be kept in mind, that the reality being measured be acknowledged and understood, that values be specified that represent "good" and "bad" on the

indicator, and that the possibility be taken into account that the social indicators employed will be an instrument for a "self-fulfilling" prophecy.

The criteria for judging workers' needs and values can be grouped into three classes. These are: personal safety and creature comfort; social and psychological well-being; and the worker-citizen nexus. The development of social indicators of the quality of working life from the standpoint of workers' needs and values is examined with respect to five separate topics: values surrounding work, opportunities for individual mobility, welfare redefinition, psychological freedom, and the worker as a consumer. It is suggested that the effort to develop social indicators of the quality of working life not encourage the self-image of the worker as victim.

NTIS PB256871/AS; PRICE CODE: A02; 15 PAGES

**2-023 STRATEGY ISSUES IN THE DEVELOPMENT OF
QUALITY OF EMPLOYMENT INDICATORS**

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Contract L-73-118

April 1974

Descriptors: QUALITY OF WORK; SOCIAL INDICATORS; FRINGE BENEFITS; WORKING CONDITIONS; JOB SATISFACTION

This study discussed several general strategy issues that must be confronted in the development of social indicators systems in general and systems for monitoring quality of employment in particular. It defined the concept of quality of employment and delineated two types of data collection and four types of measures (the one most used being employers' reports of dollars spent on fringe benefits).

The "quality-effectiveness" strategy—which defines working conditions, effectiveness, and quality of employment—was evolved in response to deficiencies in other measures. Problems with this strategy included description of processes rather than end-products, exclusion of job satisfaction as an indicator, and value assumptions that may not be from an appropriate perspective.

Dimensional analysis of jobs was discussed. The "fit" model and the "standards" model of working conditions were examined in terms of the contradiction between the analytical and descriptive goals of a monitoring system.

The problems of communication in both collecting and interpreting data were discussed also.

NTIS PB256873/AS; PRICE CODE: A03; 32 PAGES

**2-024 IMPLICIT CONTRACTS AND
UNDEREMPLOYMENT EQUILIBRIA**

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Contract L-74-198

June 1974

Descriptors: UNDEREMPLOYMENT; LABOR MARKET BEHAVIOR; LAYOFFS; ELASTICITY OF LABOR DEMAND; ECONOMIC FORECASTING; COLLECTIVE BARGAINING; WAGES; EMPLOYMENT; LABOR ECONOMICS

This paper studies an industry with demand uncertainty which prompts risk-neutral firms to act as both employers and insurers of homogeneous, risk-averse laborers. The more often the following conditions prevail, the more likely the resulting contractual arrangements are to specify full employment: small variability in product price; above average, economywide labor demand; high risk-averse workers; small unemployment compensation; and a highly competitive market. Otherwise, it may be optimal for firms to lay off, by random choice, part of the workforce in low states of demand. In such "unemployment" contracts it is profitable, under certain assumptions, to eliminate wage fluctuations (but not under underemployment status) as a source contributing to wage income variability. If the labor force is industry-specific, contractual organization of the labor market will result in the volume of employment being lower in any State (and higher in some States) than that associated with a labor auction.

NTIS PB281310/AS; PRICE CODE: A03; 37 PAGES

2-025 ESTIMATING THE PARAMETERS OF WAGE OFFER DISTRIBUTIONS

Arnold Katz
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Contract L-72-86

August 1974

Descriptors: JOB SEARCH; ECONOMIC ANALYSIS AND ECONOMETRICS; WAGE STRUCTURE

This report is based on making, then testing, specific assumptions about the form of the probability density function (p.d.f.) of the wage offer distributions. Rectangular, exponential, and LaPlace distributions are examined.

The offer distribution underlying the apparent search behavior of this particular sample appears to be rectangular. Preliminary findings show strong evidence of the inverse relationship between the conditional mean of favorable offers and the probability of a favorable offer which is implied by search theories. Preliminary studies indicate that more complicated techniques will be necessary to fully estimate the parameters of the class of unimodal symmetrical p.d.f.'s. Better data and more powerful estimating techniques should be used to do further studies on other wage offer distributions.

NTIS PB253578/AS; PRICE CODE: A02; 14 PAGES

2-026 WORK-NONWORK LINKAGES: A REVIEW OF THE LITERATURE

Arthur H. Patterson
State College, Pa.

Purchase order OAS 74-3156

September 1974

Descriptors: LITERATURE REVIEW; WORK ATTITUDES; LEISURE; JOB SATISFACTION; LABOR MARKET BEHAVIOR

This research investigated the literature that could be used to formulate a relationship between leisure activities and work behavior. It concentrated on leisure research and studies of work that had implications for work-nonwork linkages.

No body of psychological literature was found to support a relationship between leisure, work, and satisfaction like that for pay, work, and satisfaction. Categories examined covered motives and attitudes toward leisure, applicable theories of work, studies of leisure and work, differences in leisure time and leisure time use, and the future in leisure. A strong relationship was indicated between leisure activities and work behavior, both in work theories and in actual studies. Two suggested areas for further research were social measures as part of leisure and "time budgeting."

NTIS PB256657/AS; PRICE CODE: A03; 28 PAGES

2-027 THE ECONOMICS OF JOB SATISFACTION

Daniel S. Hamermesh
Michigan State University
East Lansing, Mich.

Contract L-74-52

October 1974

Descriptors: JOB SATISFACTION; OCCUPATIONAL CHOICE; ECONOMIC ANALYSIS AND ECONOMETRICS

This study derived a theory of the economic determinants of differences in job satisfaction among workers. Using a model of occupational choice, it assumed that at the time of choosing there will be only random differences in job satisfaction. As workers age, however, differential satisfaction will arise. Those workers who take the risk of choosing a skill that involves occupation-specific training will have higher satisfaction. Also, those whose wage is higher than that of the average worker with identical characteristics will derive greater satisfaction from the job.

The theory was tested using two data sets collected for the Employment Standards Administration in 1969 and 1973, separating men and women. Age, occupation-specific training, and wage deviation almost always produced significant positive effects on the job satisfaction scores. This set of variables provided a better explanation of differential job satisfaction than such variables as occupation and schooling, that have been used elsewhere but that do not flow from a consistent theoretical base. The results showed the usefulness of thinking about job satisfaction from the standpoint of economic theory. They implied, furthermore, that differential dissatisfaction will always exist and, by inference, that there will be no long-run increase or decrease in the average individual's satisfaction with his job.

NTIS PB253582/AS; PRICE CODE: A03; 97 PAGES

2-028 LABOR MARKET STRATIFICATION AND WAGE DETERMINATION

Michael J. Piore
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Cambridge, Mass.

Contract L-72-116

October 1974

Descriptors: YOUTH; LABOR SUPPLY; WAGES; METHODOLOGY

In this theoretical monograph, an attempt is made to identify a set of principles which govern the wage-setting process. A labor market structure is described which is stratified based on the factors of stability of employment and of the social groups which workers form on the job, and the variations in the level of cognitive development at which people operate in the workplace. Two approaches to incomes policy are discussed: a system of controls to thwart destabilizing pressures but permit wage adjustment which restores traditional wage relationships once these have been distorted, and a broader wage strategy designed to strengthen the inherent capacity of traditional structures to resist, on their own, destabilizing external pressures and to absorb or deflect these pressures through other mechanisms in a non-inflationary policy. The importance of establishing custom based on procedures to promote stability of the wage structure is emphasized and the conflict of this policy with one affecting income distribution and based on substance is discussed.

NTIS PB253634/AS; PRICE CODE: A08; 174 PAGES

2-029 THE MARKET FOR INFORMATION IN A HETEROGENEOUS LABOR MARKET

Kenneth Burdett and Dale T. Mortensen
Northwestern University
Evanston, Ill.

Contract L-74-154

December 1974

Descriptors: PUBLIC EMPLOYMENT SERVICE; LABOR MARKET BEHAVIOR; WORKER/JOB MATCHING; TESTING

This study explored three questions: (1) How does the competitive labor market sort workers among different jobs? (2) Is the market solution efficient? (3) Is there a role for the public employment service in the sorting process? Its purpose was to develop a general framework for sorting workers with differing abilities among jobs that make use of those abilities, inasmuch as very little research takes account of the heterogeneity of job characteristics and of worker capabilities.

Because individual talents are not known with certainty, employers use "signals"—proxy measures that are correlated with talents. Hence, the study developed a model that relates the characteristics of individual workers to their potential productivity in different jobs. It hypothesized that a new "test score" would allow for more accurate prediction of productivity in any job, but would be costly to obtain from employment agencies, personnel offices, or the employment service. The model incorporated the premise that an efficient competitive solution to sorting requires that a tested worker's score be public information and that she/

he decide to take the test subject to that condition. (Certification violates the second condition.)

The employment service could subsidize the test by charging less than its marginal cost, but should restrict such subsidies by administering the test to workers with low "prior signals" because making the test a condition of entry provides compensating incentives for workers with signals that predict high scores on the test.

NTIS PB254940/AS; PRICE CODE: A03; 41 PAGES

2-030 AN ECONOMIST'S VIEW OF JOB SATISFACTION AND WORKER ALIENATION

Daniel S. Hamermesh
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Washington, D.C.

January 1975

Descriptors: ECONOMIC INDICATORS; JOB SATISFACTION; PRODUCTIVITY; ALIENATION; LABOR DEMAND

This paper presents an economic view of the problems of job satisfaction and productivity through an examination of several myths in popular literature. It concludes that no generalized program of productivity improvement or job enrichment can be expected to make workers happier. They would be better off materially if such programs were successful (i.e., extra output exceeds extra costs), and there is some possible role for government insofar as information about successful programs is only slowly disseminated by the free market. However, the discussion suggests that the increased alternatives in the labor market would wipe out any increase in expressed satisfaction with the workers' current jobs. Because of the inherent relative nature of job satisfaction, based upon the comparison of opportunities open to the worker, no trend in satisfaction or long-run relations of average job satisfaction to real earnings can be expected. The economic view of satisfaction implies that we should be careful to avoid fallacies of composition when analyzing job enrichment and work restructuring. This discussion indicates that worries about dissatisfaction arise naturally when unemployment is low and tend to disappear when unemployment is higher.

NTIS PB283300/AS; PRICE CODE: A03; 27 PAGES

2-031 AN ECONOMIC ANALYSIS OF LABOR TURNOVER

J. E. Stiglitz
Stanford University
Stanford, Calif.

Purchase order B-9-M-5-0513

February 1975

Descriptors: COST-BENEFIT ANALYSIS; TURNOVER; PENSIONS; GOVERNMENT POLICIES

This study explored the determinants of labor turnover, the relationship between private and social returns and costs to turnover, the mechanisms by which firms can affect the turnover rate, and the relative roles of internal and external labor markets. The objective of the study was to consider the effect of alternative government policies, such as those pertaining to vested pensions, on turnover rates, and to

evaluate these policies. Simplified mathematical models providing the basis for the conclusions were presented.

To the extent that nonvesting of pensions reduces labor turnover, restrictions on nonvesting are likely to cause an increase in turnover, the study concluded. Seniority wage structure was found to be likely to discourage labor turnover but to cause misallocation of labor. The difference between productive and unproductive unemployment was discussed. It was suggested that quantitative measurements of the above effects be made to determine whether it is desirable to decrease or increase labor turnover. The major conclusion was that there does not appear to be any very good instrument available for affecting turnover as selectively as desired.

NTIS PB256248/AS; PRICE CODE: A05; 78 PAGES

2-032 MODELS OF LABOR MARKET TURNOVER: A THEORETICAL AND EMPIRICAL SURVEY

Donald O. Parsons
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Columbus, Ohio

Purchase order OAS 74-3374

March 1975

Descriptors: LITERATURE REVIEW; LABOR MARKET INFORMATION; TURNOVER; ECONOMIC ANALYSIS AND ECONOMETRICS; JOB RETENTION; JOB SEARCH

From the perspective of manpower policy needs, this survey of recent research on job attachment, or, conversely, job turnover, explored theoretical developments in job search models, discussed labor market models that stress the firm's behavior in the presence of specific human capital and incomplete information, and examined empirical studies of turnover.

It concluded that neither turnover models nor their estimation are sufficiently well developed to be useful, detailed guides to employment and training policy. Turnover literature implies that on-the-job training programs should be selective in the choice of occupation and industry, and turnover rates provide an index of the volume of on-the-job learning by industry, but not by occupation and tenure. Further, the conflict between the efficiency and welfare objectives of training programs may prevent effective government intermediation through the employment service.

On the theoretical side, further research was recommended on the layoff component of turnover, search behaviors, and quit behavior.

NTIS PB256520/AS; PRICE CODE: A04; 59 PAGES

2-033 IS WAGE RESPONSE ASYMMETRICAL?

Herschel I. Grossman
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Providence, R.I.

Contract L-74-198

April 1975

Descriptors: LABOR MARKET BEHAVIOR; WAGE STRUCTURE; ELASTICITY OF LABOR DEMAND; ECONOMIC ANALYSIS AND ECONOMETRICS; COLLECTIVE BARGAINING; WORK SCHEDULES

This paper applies the contractual theory of labor markets to answer the following question: Should we expect the nature of the response of nominal wage rates to unexpected changes in aggregate excess demand to be symmetrical over the cycle? In other words, do nominal wage rates exhibit the same response (except for direction) to unexpected increases and unexpected decreases in demand relative to supply?

The analysis concludes that, under an optimal labor contract, the wage rate is more likely than not to exceed the supply price of labor and, equivalently, the actual amount of employment is more likely than not to be less than the amount workers desire at the prevailing contractual wage rate. Moreover, the market for labor services clears only if demand turns out to be greater than the expected value. Thus, the result is as if the wage rate were more responsive to unexpectedly high demand than to unexpectedly low demand. In addition, the possibility of worker default (quitting to take another job) means that the contractual wage schedule should allow the wage rate to adjust upward in response to high levels of demand. This adjustment reinforces the asymmetry already present in the fixed-wage-rate portion of the wage schedule.

NTIS PB281523/AS; PRICE CODE: A03; 25 PAGES

2-034 IMPACT OF THE RECENT INFLATION ON LABOR SKILL DIFFERENTIALS

Robert N. Schoeplein
U.S. Department of Labor/ASPER
Washington, D.C.

Purchase order B-9-M-5-0990

April 1975

Descriptors: WAGE DIFFERENTIALS; MANUFACTURING; NONMANUFACTURING; COLLECTIVE BARGAINING

This study examined the decidedly different behavior of labor skill differentials in manufacturing and nonmanufacturing during 1965-73.

It found that the industrywide bargaining, consolidated bargaining, and coercive comparisons within the more-unionized manufacturing sector had resulted in negotiated wage-scale rigidities that would seem impervious to business cycle or inflation shocks. The wage scale in this administered manufacturing sector was generally higher than in the more competitive nonmanufacturing sector, providing employers in manufacturing with a wage premium with which to maintain labor queues over the course of normal business fluctuations. The horizontal wage link for skilled workers between the two sectors in tight labor markets and inflation was absent for unskilled workers. In tight labor markets, the entrance of significant numbers of labor reserve individuals into unskilled jobs in nonmanufacturing depressed relative wage changes. Economic conditions and other depressing forces were mutually reinforcing in inducing a sharp widen-

ing of the nonmanufacturing skill differential during inflation.

NTIS PB256246/AS; PRICE CODE: A05; 88 PAGES

2-035 IMPROVING THE QUALITY OF WORK LIFE: CAREER DEVELOPMENT

John Van Maanen and Edgar H. Schein
Cambridge, Mass.

Contract L-74-132

June 1975

Descriptors: QUALITY OF WORK; CAREER PATTERNS; VOCATIONAL GUIDANCE

This study used the career concept to gain further understanding of the nature and workings of complex organizations. Three primary frameworks for career development were identified: personal, organizational, and institutional/societal. The desirability of integrating these frameworks was stressed. Differential, developmental, and organizational psychological theories of career development were presented. Theories from industrial sociology and the sociology of occupations and professions and organization theory were also discussed. Basic concepts for the study of careers—internal vs. external perspective, careers over time, and the interactive framework—were discussed in detail.

Recommendations were made for steps which the society, the organization, and the individual can take to improve career development.

NTIS PB257390/AS; PRICE CODE: A06; 112 PAGES

2-036 IMPROVING THE QUALITY OF WORK LIFE: GROUP AND INTERGROUP DESIGN

Clayton P. Alderfer
Bethany, Conn.

Contract L-74-80

June 1975

Descriptors: QUALITY OF WORK; SOCIAL RELATIONSHIPS; ORGANIZATIONAL ENVIRONMENT

Many approaches to group behavior in organizations fail to give an adequate account of intergroup dynamics by focusing almost exclusively on intergroup processes. Several classical studies of group behavior were examined to detect how the original investigators dealt with intergroup dynamics, and a series of classical propositions explaining the nature of intergroup conflict was outlined. This report defined the human group to give more attention to intergroup relations than most previous concepts of group behavior. A series of specific (generational, sex, ethnic) intergroups within organizations was defined and described.

The study concluded by presenting and discussing several behavioral science interventions that might be employed to improve intergroup relations in organizations. Interpersonal peacemaking, intergroup problem solving, and the Scanlon plan may be used for intervention in intergroup conflicts that arise from division of labor and hierarchy of authority, and group dynamic methods may be applied to historically-rooted intergroup conflicts based on sex and race.

NTIS PB255046/AS; PRICE CODE: A06; 108 PAGES

2-037 IMPROVING THE QUALITY OF WORK LIFE: REWARD SYSTEMS

Edward E. Lawler, III
Pinckney, Mich.

Contract L-74-78

June 1975

Descriptors: QUALITY OF WORK; ORGANIZATIONAL ENVIRONMENT; INCENTIVES; PERSONNEL ADMINISTRATION

This study examined the relationship between reward systems, quality of work life, and organizational effectiveness. For the quality of work life to be good, the reward system must offer rewards high enough to satisfy the basic needs of individuals,—rewards equal to or greater than those in other organizations, a distribution of rewards that is seen as fair by the members, and a provision of rewards that fit the needs of individuals. To promote organizational effectiveness, rewards must be perceived to be related to performance, high overall satisfaction, and external equity, and higher rewards must be provided for better performers; important rewards must be related to actually coming to work; and the reward distribution pattern and decisionmaking approach must fit the management style and organization structure. Characteristics of different reward systems and the advantages and disadvantages of different performance based pay systems in different organizational environments were discussed.

It was concluded that congruence between the reward system adopted and the organization's structure and management approach is important for improving the quality of work life and organizational effectiveness.

NTIS PB255045/AS; PRICE CODE: A07; 130 PAGES

2-038 IMPROVING THE QUALITY OF WORKING LIFE: WORK DESIGN

J. Richard Hackman
Bethany, Conn.

Contract L-74-77

June 1975

Descriptors: QUALITY OF WORK; JOB ANALYSIS; WORK ATTITUDES; ORGANIZATIONAL ENVIRONMENT

This study addressed questions concerning work redesign: why it is effective when it is, what goes wrong when it isn't, and how it could be made more useful as an approach to personal and organizational change. Activation, motivation-hygiene, and job characteristic theories of work design were discussed. The job characteristics model of work motivation was used to explain how job redesign can increase productivity and employee satisfaction, by increasing the employee's experienced meaningfulness of the job, experienced responsibility, and knowledge of the results of his/her work. The importance of individual differences in skill and growth needs, organizational structure, interpersonal relationships, and technology to work system redesign success were discussed.

The author found that work redesign fails when the work system is not diagnosed prior to change, when the focus is not kept on the work itself, when problems are not anticipated, when continuous evaluation is not done, when diffi-

cult problems are not confronted early, and when the change processes don't fit the change objectives. He recommended wider education about the theory and practice of work design, better ways of diffusing work redesign innovations throughout organizations, increased attention to improving the jobs of first and second level managers, and an expanded role for labor unions in initiating and executing work redesign projects.

NTIS PB253044/AS; PRICE CODE: A06; 125 PAGES

2-039 A STUDY OF THE EFFECTS OF CHANGES IN CONTROL SYSTEMS AND CONTROL PROCESSES ON WORK UNITS

*Cortlandt Cammann, David A. Nadler, and Philip H. Mirvis
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Ann Arbor, Mich.*

Contract L-74-187

June 1975

Descriptors: BANKING INDUSTRY; ORGANIZATIONAL STRUCTURE; PERSONNEL MANAGEMENT; EXPERIMENTAL DESIGN; ASSESSMENT AND EVALUATION

This study examined the effects of introducing a new control system into ten branches of a midwestern bank. The control system was to facilitate participative control and problem solving in the branches, and was hypothesized to have a positive effect on the level of participation in branches and on branch effectiveness. The new control system was evaluated by observing its use in the branches and by comparing questionnaire and record information from these experimental branches with the same data collected from ten similar branches where the control system was not implemented.

The results indicated that the new control system affected the functioning of some work groups in the experimental branches, but not others. Further, it appeared that some functional effects were due to an increase in participative control processes, while others were due to an increase in directive management. The researchers concluded that participative control systems work under some conditions, but not others, and that the effects and effectiveness of different control system designs are probably contingent on contextual factors such as the problem solving skills and orientations of organization members, and the nature of the reward systems in the organization.

NTIS PB278222/AS; PRICE CODE: A03; 43 PAGES

2-040 IMPROVING THE QUALITY OF WORK LIFE: STRATEGIES FOR CHANGE

*Michael Beer and James W. Driscoll
Corry, N.Y.*

Contract L-74-81

June 1975

Descriptors: QUALITY OF WORK; WORK ENVIRONMENT; ATTITUDES; SOCIAL ORGANIZATION; PSYCHOLOGICAL AND PHYSICAL FACTORS

This monograph presents an array of strategies for changing the quality of work life ranging from internal strategies

available to individuals and groups inside the organization to means for organizing political and interest groups outside the organization. It also presents a variety of strategies available to the government. The three stages of the psychological process and their applicability to organizational change are described, as is the importance of encouraging lower level worker participation in successful change. The boundaries of the change target must be defined (e.g., individuals vs. structure; a combination of power vs. collaboration; market vs. collective or revolutionary; research and development vs. facilitation; centrally planned vs. decentralized; rapid vs. slow; solving problems vs. changing individual dispositions and organizational culture; and growth vs. decrement). The role of the government is seen to be a middle ground between pressure strategies and court actions, on one hand, and facilitation strategies on the other. The strategies employed by agents of change are seen to vary, depending on the point of view, the situation, and the place in society that the change occupies.

NTIS PB281335/AS; PRICE CODE: A06; 121 PAGES

2-041 THE NATURE OF OPTIMAL LABOR CONTRACTS

*Herschel I. Grossman
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Providence, R.I.*

Contract L-74-198

June 1975

Descriptors: LABOR MARKET BEHAVIOR; LABOR DEMAND; ELASTICITY OF LABOR SUPPLY; CONTRACT CONTINGENCY; WAGE RATES; COLLECTIVE BARGAINING; EMPLOYMENT

This paper analyzes the nature of optimal labor contracts with the objective of answering the following questions: Why does the market for labor services not operate as a spot auction market in which wage rates adjust to equate quantities currently supplied and demanded? More specifically, why do adjustments in the quantity of employment frequently involve nonwage rationing rather than strictly wage-induced voluntary movements along the supply schedule of labor services?

The analysis concludes that nonwage rationing of jobs is a manifestation of desirable long-run commitments voluntarily embodied in labor market transactions between employers and risk-averse workers. Although this manifestation is unpleasant in the short run, both employers and employees find it preferable to the alternative of a labor market that would operate as a continual spot auction. This paper also explicitly considers the existence of finite penalties for the default of labor contracts and the possibility that such penalties might turn out to be inadequate to prevent one of the parties from defaulting. The analysis shows that these considerations (involving the penalty for default and the possibility of default) are critical in explaining the nature of contractual bargains.

NTIS PB281512/AS; PRICE CODE: A03; 34 PAGES

2-042 IMPROVING THE QUALITY OF WORK LIFE: MANAGERIAL PRACTICE

*George Strauss
Berkeley, Calif.*

Contract L-74-84

June 1975

Descriptors: QUALITY OF WORK; SUPERVISION;
ORGANIZATIONAL ENVIRONMENT

This monograph concerns the key role of management in determining the Quality of Work Life (QWL)—through the day-to-day contacts of individual managers with members of the work force, through establishing policies and promoting an atmosphere which either inhibits or facilitates good QWL, and through (re)design of jobs, administration of career and reward systems, and promotion of cohesive work groups. The manager must use consideration, facilitation (explained in terms of expectancy theory), and participation to achieve good QWL. Structural limitations (span of control and whether the organization is organized along a functional or product basis) and the attitudes of higher management influence the supervisor's effectiveness in improving QWL, as does the attitude of the union, if one is present. Participation is stressed as a way of improving QWL by increasing the employee's control over his job and gaining workers' cooperation in implementing changes that may be made.

NTIS PB255047/AS; PRICE CODE: A07; 127 PAGES

**2-043 AN APPROACH TO PRODUCTIVITY
IMPROVEMENT IN THE PUBLIC SECTOR
(MULTI-MUNICIPAL PRODUCTIVITY
PROJECT)**

*Nassau County, N.Y., Office of the Executive
Mineola, N.Y.*

Contract L-74-74

July 1975

Descriptors: STATE AND LOCAL GOVERNMENTS;
PRODUCTIVITY; GOVERNMENT WORK; NEW YORK, NASSAU
COUNTY

The major premise of this procedural manual was that productivity of municipal services can be measured and improved through systems analysis by trained analysts. It assumed that productivity improvement must have the support of the elected public and union officials and can best be achieved through employee participation. The process of gathering objective data on employee attitudes for productivity improvement was described. The public should be made aware of the benefits of productivity improvement. A program for communication of program goals and objectives to all participants, considered to be essential, was described. The approach contained four major stages: attitudinal survey, micro stage (training period and pilot program), macro stage, and productivity bargaining. A training manual, glossary, and other reference material are appended.

(For other reports concerning the Multi-Municipal Productivity Project, see the two items that follow.)

NTIS PB253645/AS; PRICE CODE: A06; 110 PAGES

**2-044 MULTI-MUNICIPAL PRODUCTIVITY PROJECT-
FINAL EVALUATION REPORT**

*Nassau County, N.Y., Office of the Executive
Mineola, N.Y.*

Contract L-74-74

July 1975

Descriptors: PRODUCTIVITY; WORK ATTITUDES;
GOVERNMENT WORK; STATE AND LOCAL GOVERNMENTS;
COLLECTIVE BARGAINING; JOB ANALYSIS; NEW YORK,
NASSAU COUNTY

This evaluation concerned three programs of the productivity project: a demographic and attitudinal survey of employee attitudes and opinions in relation to improving productivity; a personnel survey of salary levels and job specifications, to determine the impact of and the training necessary to implement job specification changes; and productivity bargaining. A formula was developed to calculate effects of productivity improvements, and output measures were developed and tested. A demographic and attitudinal data bank was created, and a procedural manual developed. A labor-management liaison network was established and a productivity benefit increase (PBI)—a deferred compensation trust fund based on productivity savings—was designed as an incentive.

In 14 Productivity Improvement Efforts (PIE), productivity improved by 36 percent overall. An overall improvement factor based on the municipalities' labor budget was found to be 1.2 percent for the four municipalities. It was found, over the 32 months of the project, that although not all successes were dramatic and the process of implementing change was slow, rank and file employees working with a largely self-trained technical staff could improve productivity in municipal departments. (For further information on the project, see the preceding and following items.)

NTIS PB257106/AS; PRICE CODE: A15; 341 PAGES

**2-045 AN EVALUATION OF THE NASSAU COUNTY
PROJECT**

*Sam Zagoria
Labor Management Relations Service
Washington, D.C.*

Contract L-74-82

July 1975

Descriptors: STATE AND LOCAL GOVERNMENTS;
GOVERNMENT WORK; COLLECTIVE BARGAINING; WORK
ATTITUDES; PRODUCTIVITY; NEW YORK, NASSAU COUNTY

This study analyzed the Nassau County, N.Y., Multi-Municipal Labor-Management Productivity Project, launched in 1972. (See also the preceding items.) The sponsors of the project were out to achieve productivity improvement among the 25,000 employees of Nassau County and the towns of Hempstead, North Hempstead, and Oyster Bay; to develop procedures advancing productivity by exchange of personnel and equipment among them; to unify job descriptions and contract terms and then go on to joint bargaining with the units of the N.Y. Civil Service Employees Association; to carry out a survey of worker attitudes; to complete a formula for assessing productivity gains and then achieve a labor-management negotiated agreement for sharing the monetary savings resulting from improved productivity. These were very ambitious goals.

The Final Evaluation Report by the project staff indicates that it succeeded in making many employees recognize that they could make improvements; these were mostly achieved

through joint labor-management groups. A "Municipal Service Productivity" gauge and an "Improvement" formula were devised. The personnel survey demonstrated substantial disparity in pay among the towns and even wider disparity between the towns and the county. It was shown that, with commitment expressed and reinforced by such absolute requirements as submission of productivity efforts with annual budget requests, a consciousness of productivity can be developed. Despite the failure to set up a productivity benefit increase fund in bargaining, which was to have been financed by a share of the savings from attrition and used to reward workers in proportion to the savings realized by improvements in their productivity, there was a new productivity consciousness in the project areas. The efforts forced managers to manage.

But with no mechanism in place for carrying out the promise of rewarding productivity efforts and with no apparent method for continuing the project staff, the prospects are that new initiatives will be few and established efforts may dwindle.

There are questions about the replicability of this project, as few communities, relatively speaking, have such a close labor-management relationship, and leaders on both sides who are willing to go beyond their traditional boundaries.

NTIS PB265207/AS; PRICE CODE: A02; 22 PAGES

2-046 FEDERALLY SPONSORED RESEARCH ON THE QUALITY OF WORKING LIFE: PLANNING, SUPPORT, AND PRODUCTS

Michael T. Wood, John E. Rasmussen, and Edward E. Lawler, III
Battelle Memorial Institute
Seattle, Wash.

Contract L-74-170

July 1975

Descriptors: GOVERNMENT POLICIES; QUALITY OF WORK; JOB SATISFACTION; PLANNING, RESEARCH, AND DEVELOPMENT

This study examined Federal research programs on the quality of working life—their nature, planning, and use. It was performed to examine the need to integrate and plan quality of working life programs funded by the Federal Government. Program information was obtained through structured interviews with personnel in 12 Federal agencies, and through written materials provided by the agencies. The information dealt with the nature and importance of the quality of working life (QWL) issue; the substance of QWL research; the dissemination and utilization of QWL research products; agency program-planning processes; and coordination among agencies with interests in the QWL area.

It was concluded that QWL will remain a salient issue for the immediate future, but significant increases in research support were not expected. Developing truly collaborative interagency research programs requires overcoming barriers associated with: (1) Time and budget pressures within agencies; (2) competition between agencies for funds; (3) the preservation of agencies' territories; (4) the ill-defined nature and magnitude of the QWL problem; and (5) the diversity of primary agency missions.

Three general recommendations emerged from this study. They dealt with coordination of Federal programs, the sub-

stance of QWL research, and the need for additional information.

NTIS PB257391/AS; PRICE CODE: A06; 116 PAGES

2-047 ASYMMETRIC WAGE BEHAVIOR

Costas Azariadis
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Providence, R.I.

Contract L-74-198

July 1975

Descriptors: LABOR MARKET BEHAVIOR; LABOR DEMAND; ELASTICITY OF LABOR SUPPLY; WAGE RATES; WAGE DIFFERENTIALS; COLLECTIVE BARGAINING; FRINGE BENEFITS; LABOR MARKET INFORMATION

In the absence of compelling empirical evidence, is there any reason to expect that wages will be more responsive to excess supply? In a contractual labor market, this paper finds, risk-neutral employers will offer nonstochastic wages as a means of reducing the variability of labor income streams, which risk-averse employees find it both desirable and difficult to diversify against.

Agreements of that sort are not absolutely binding in civilized societies—either party can default at finite cost. But default creates well-defined deadweight economic losses that efficient contracts will avoid by tempering the wage rigidity inherent in all contractual bargains. Equilibrium wage schedules are more likely to be rigid downward and flexible upward when default is relatively more costly for employers than for employees. This will be the case if the worker's fraction of the returns to specific human capital is small, if pension plans are vested with employees, if moving costs are small in relation to hiring costs, if information about personnel policies of firms is more plentiful or easier to obtain than is information about the employment record of individuals, etc. This asymmetry in wage behavior will be observed more frequently in industries whose average pay to their permanent work force falls short of what is available for workers of similar skills elsewhere in the economy. Examples are industries with declining demand, with low variability of demand about its trend, or with high price-elastic demand.

NTIS PB281618/AS; PRICE CODE: A03; 27 PAGES

2-048 UNIONISM AND EMPLOYER FRINGE BENEFIT EXPENDITURES

Loren M. Solnick
State University of New York
Albany, N.Y.

Purchase order B-9-M-6-0787

August 1976

Descriptors: FRINGE BENEFITS; COLLECTIVE BARGAINING; PENSIONS; INSURANCE

This study estimated the difference between employer fringe benefit expenditures for production workers in union and nonunion establishments in 16 manufacturing industries, concentrating on two major components of the fringe benefit package: pensions and life, accident and health insurance.

The union impact on employer fringe benefit expenditures was estimated in two ways: the differential in employer contributions and in the level of expenditure among establishments with nonzero contributions. Because of the belief that employees pay for employer fringe benefit expenditures through foregone wage increases, the model was based primarily on a theory of employee demand for employer-paid benefits.

The results supported the conclusion that unionization is associated with higher levels of employer expenditures on pensions, and life, accident and health insurance, with large variations among industries, perhaps in part because of spillover effects. A detailed study of fringe benefits in several industries over time might shed more light on the forces underlying current benefit levels.

NTIS PB256797/AS; PRICE CODE: A03; 29 PAGES

2-049 RISK SHIFTING AND RELIABILITY IN LABOR MARKETS

Herschel I. Grossman
Brown University
Providence, R.I.

Contract L-74-198

September 1976

Descriptors: JOB RETENTION; PRODUCTIVITY; JOB SATISFACTION; WAGES; TURNOVER

This study analyzed the allocation of risks associated with variations in the value of aggregated output between workers and their employers. The analysis emphasized two factors that make it infeasible for risk-neutral firms to relieve risk-averse workers of all risk: (1) Limited risk-absorbing capacity of firms, which means that most firms cannot guarantee their workers a stable consumption stream through an agreement providing a fixed wage payment, and that firms generally earn rents in their risk-absorbing role; and (2) the unreliability of workers, defined as their unwillingness to forego short-run gains they could achieve by quitting or demanding a wage increase when the value of their output exceeds the agreed-upon wage.

It was found that differences among workers in their reputation for reliability, which relate to their behavior when the value of output is high, produce differences in the terms at which they can obtain consumption when the value of output is low, because the process by which the worker establishes a reputation for reliability requires that he or she not quit to obtain short-run gains. The benefit from reliable behavior was found to be greater, the more averse the worker to risk and the more predisposed the firm was to regard the worker as reliable. Therefore, workers with longer service were relatively more risk-averse, but firms may develop self-confirming preconceptions of reliability that differ for groups of workers that are not intrinsically different.

NTIS PB265894/AS; PRICE CODE: A03; 37 PAGES

2-050 UNIONS IN THE FEDERAL SECTOR: A STUDY OF THE STRUCTURE, FINANCES, AND LEADERSHIP OF AMERICAN FEDERAL EMPLOYEE LOCAL UNIONS IN 1975

Marcus Hart Sandver
Ohio State University
Columbus, Ohio

Purchase order B-9-P-6-4166

March 1977

Descriptors: UNIONS; FEDERAL GOVERNMENT; INCOME; ORGANIZATIONAL STRUCTURE

This study of the finances, structure, and leadership of local unions of Federal employees surveyed the 1975 experience of over 650 locals. The survey covered the locals' financial position, their disbursements, their assets and liabilities, estimates of their membership, and descriptive data on their leadership.

The results provide a distribution of locals by State and by national union affiliation. They also indicate that local leaders exhibit considerable deviation from the public positions of their national unions.

NTIS PB290396/AS; PRICE CODE: A04; 62 PAGES

2-051 TIME-INCOME TRADEOFF AND WORK SCHEDULING PREFERENCES: A REPORT ON AN EXPLORATORY SURVEY STUDY OF ALAMEDA COUNTY EMPLOYEES IN CALIFORNIA

Fred Best
Quality of Life Research Associates
Washington, D.C.

Purchase order B-9-E-7-2376

July 1977

Descriptors: WORK SCHEDULES; JOB SATISFACTION; LEISURE; LIFE CYCLE; SOCIOLOGICAL FACTORS; EDUCATIONAL ASPIRATIONS; EARNINGS; SEX DIFFERENCES; AGE DIFFERENCES; CALIFORNIA, ALAMEDA COUNTY

The objective of this study was to assess and explain the following propositions: (1) The ways in which existing and potential work and free time are scheduled may be an important determinant of time-income tradeoff preferences; particularly, workers may be more willing to exchange income for free time in the form of extended periods away from work. (2) Workers may prefer significant alterations in the ways in which work is currently distributed over long periods of time; particularly, workers may prefer a cyclic rather than a linear schedule of education, work, and leisure over their life spans.

The data were from a questionnaire survey of the "work and lifetime scheduling preferences" of 791 employees of Alameda County, Calif. The data were analyzed through cross-tabular correlation and regression.

The major findings were: While only one-fifth of the sample preferred a general exchange of income for more free time, choices among equally costly income and alternative free time options indicated that willingness to exchange earnings for free time was strongly influenced by the form and variety of potential free time. Responses indicated that workers may prefer more flexibility in the ways education,

work, and leisure are scheduled over the total life cycle. Responses also indicated a desire for extended free time away from work, such as longer vacations and sabbatical leaves.

Survey responses, however, varied notably according to the social characteristics of respondents, with women, younger persons, nonmanual workers, and the more highly educated demonstrating greater desire for more free time and alternative work schedules.

NTIS PB280790/AS; PRICE CODE: A08; 160 PAGES

2-052 DETERMINANTS OF JOB TENURE

*Richard B. Freeman
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Purchase order B-9-M-7-0196

September 1977

Descriptors: JOB TENURE; UNIONS; SECURITY SYSTEMS; STATISTICAL ANALYSIS

This study used statistical analysis to examine the factors that determine job tenure. Its economic and statistical models focused particularly on the institutional rules (such as seniority) that affect the attachment between workers and firms. It used longitudinal and cross-section data to estimate the effect of such factors as unionism, sex, race, industry and occupation on job tenure and on breaks in tenure.

The analysis showed that a large fraction of the U.S. work force are effectively permanent employees, but found significant differences in tenure among groups.

NTIS PB279075/AS; PRICE CODE: A04; 59 PAGES

2-053 GOVERNMENT HEALTH POLICY AND LABOR COSTS: A STUDY OF THE DETERMINANTS OF HOSPITAL WAGE RATES AND EMPLOYMENT

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Boston, Mass.*

Purchase order B-9-F-7-2365

September 1977

Descriptors: EMPLOYMENT; HOSPITALS; WAGES; COSTS; INFLATION

This study explored the relationship between labor costs, cost inflation, and cost containment policies in hospitals, to predict more accurately the full impact of government policies.

It concluded that rising hospital employment and wage rates are not the principal cause of the rapid rise in hospital costs. Hence, any government policy that explicitly or implicitly focuses on hospital labor costs as the key to reducing hospital cost inflation would be treating the symptoms, rather than the causes, of hospital cost inflation, and would have undesirable effects on the employment and earnings of hospital workers.

NTIS PB279850/AS; PRICE CODE: A04; 73 PAGES

2-054 THE 1972-73 QUALITY OF EMPLOYMENT SURVEY: DESCRIPTIVE STATISTICS, WITH COMPARISON DATA FROM THE 1969-70 SURVEY OF WORKING CONDITIONS

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November 1977

Descriptors: QUALITY OF WORK; ATTITUDES; SURVEYS; DATA SOURCES AND USE; QUESTIONNAIRE; EMPLOYMENT PATTERNS

This volume is part of a continuing research program designed to provide for the continuous monitoring of quality of employment. Data were obtained through personal interviews with 1,496 households in the U.S. outside of military reservations. This survey repeated the "core" measures of the 1969-70 survey: quality of employment, labor standards problems, job satisfaction, and importance ratings of job facets. This volume presents basic descriptions of all questions asked in the 1972-73 survey, in addition to many of the survey's major multiquestion indexes. It is a major sourcebook of tables and thus provides no interpretation of the data. For the survey's major questions and indexes, data are presented separately for workers distinguished by their age, sex, race, education, employment status, occupation, collar color, and industry. Whenever a question appeared in both the 1969-70 and 1972-73 surveys, the 1969 data are included in the tables for comparison. A *Monthly Labor Review* article reproduced in the concluding section of the report presents a preliminary interpretation of the 1973 data, emphasizing the change, or lack of change, observed between 1969 and 1973. Comparison of the 1969 and 1973 data indicates that an increasing number of workers are becoming locked into their jobs. In addition, most of the experiments and reforms undertaken during these 3 years seem to have had little impact on the work force at large. Wage inequities between men and women remain unchanged. Experiments with working hours, job enlargement, and job enrichment have been frequent. However, the data indicate that they have had no appreciable impact on national statistics.

NTIS PB290745/AS; PRICE CODE: A11; 333 PAGES

2-055 THE 1972-73 QUALITY OF EMPLOYMENT SURVEY: CONTINUING CHRONICLES OF AN UNFINISHED ENTERPRISE

*Robert P. Quinn, Jeffrey T. Walsh, and Deborah L. King
Hahn
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November 1977

Descriptors: ATTITUDES; SURVEYS; QUALITY OF WORK; WORK ENVIRONMENT; COMPARATIVE STUDIES

This report is a collection of 14 papers produced in the course of the research of the 1972-73 Quality of Employment Survey. Chapters 1 and 2 review some changes between 1969 and 1973 identified by the two surveys. Chapter 2 also deals with changes in occupational sex discrimination. Chapter 3 deals with sex and supervisory style. Chapter 4 also deals with supervision—the relationship between supervisory style and establishment size. Further attitudinal cor-

relates of size are investigated in Chapter 5. Chapters 6 and 7, on fringe benefits and hours, summarize the data from the 1969 and 1973 surveys and attempt to isolate those conditions that are the best predictors of workers' satisfaction with, respectively, fringe benefits and hours. Chapters 8 and 9 deal with two puzzling financially relevant matters: Why don't workers want to be promoted and how important is pay to workers? Chapters 10 and 11 examine some of the effects of working conditions: physical health, mental health, counterproductive behavior, and drug use. Some broad issues of work commitment through the life cycle are discussed in Chapter 12. The two concluding chapters deal with the integration of or conflict between two major social forces—education and the technology of work.

NTIS PB290746/AS; PRICE CODE: A14; 313 PAGES

2-056 STICKY WAGES AND IMPLICIT CONTRACTS: A TRANSACTIONAL APPROACH

Richard H. Thaler and David Mayers
University of Rochester
Rochester, N.Y.

Contract J-9-M-6-0182

December 1977

Descriptors: LITERATURE REVIEW; UNIONS; STICKY WAGES; LAYOFFS; SENIORITY SYSTEM; LABOR ECONOMICS; COLLECTIVE BARGAINING; COSTS; WAGES

Earlier studies have explained implicit labor contracts with fixed money wages as devices to transfer risk from workers to firms (e.g., Baily, 1974; Azariadis, 1975; Gordon, 1974; and Grossman, 1977). Arguing that their emphasis on risk aversion was misplaced and that existing labor market institutions can be explained simply by an analysis of transaction costs, this paper shows that seniority systems, layoffs, and fixed money wages are used to economize on costs. Layoffs are observed because placing the employment decision in the employer's hands economizes on both information and production costs. Thus, layoffs should be viewed as a necessary cost of dealing with output variations in an uncertain world, not of market failure in any meaningful sense.

Because unions may facilitate the delegation of employment decisions to the firm by acting as a monitor, employers as well as employees may demand union services.

NTIS PB280132/AS; PRICE CODE: A03; 31 PAGES

2-057 LABOR MARKET INTERMEDIARIES

National Commission for Manpower Policy
Washington, D.C.

March 1978

Descriptors: PUBLIC EMPLOYMENT SERVICE; PRIVATE EMPLOYMENT AGENCIES; JOB SEARCH; EMPLOYER PRACTICES AND POLICIES; NATIONAL COMMISSION FOR MANPOWER POLICY; CONFERENCES; LABOR MARKET BEHAVIOR

This report summarizes the Conference on Labor Market Intermediaries sponsored by the National Commission for Manpower Policy on November 17, 1977, and contains the papers presented at the conference. The topics covered include: (1) The economic and social rationale for the exist-

ence of labor market intermediaries (employment agencies, the Public Employment Service, professional journals, etc.); (2) the role and functions of different intermediaries and conditions that affect their use and effectiveness; (3) the conceptual reasons for different types of intermediaries and the relationships among them; (4) the output of intermediaries and its measurement; (5) the markets served by different intermediaries and the method of service; (6) the use of intermediaries in recruiting and screening prospective employees; (7) employers' reasons for using and choosing intermediaries; and (8) the linkages between workers' job search methods and their choice and use of intermediaries.

NTIS PB290656/AS; PRICE CODE: A13; 276 PAGES

2-058 HEALTH STATUS AND HEALTH SERVICES UTILIZATION IN RELATION TO INDUSTRY- OCCUPATION MIX

Ching-Huei Chang and Teh-Wei Hu
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University Park, Pa.

Contract J-9-M-6-0211

May 1978

Descriptors: OCCUPATIONAL SAFETY AND HEALTH; HEALTH CARE; LONGITUDINAL SURVEYS

This study evaluated the net impact of industry-occupational mix on workers' health (incidence of disease and restricted activity days) and their utilization of health services (physician visits and hospital stays), based on the 1973 Health Interview Survey data, using a sample base of 23,344 self-respondent workers. The logit technique was used for estimating disease incidence equations and the least-squares technique was used to estimate the disability day and health care services utilization equations.

Summing up disease possibilities that are significant at the 10 percent level revealed that chemical and allied product manufacturing has the highest disease incidence of any industry category, followed by business services, construction, and metal product manufacturing. The lowest incidence of disease occurs in the agriculture, forestry, and fisheries industry. The probabilistic values of disease incidence obtained in this study were considered higher than the incidence rates reported by the Bureau of Labor Statistics in 1972. Occupational dummy variables were included in all disease incidence equations and utilization of medical care equations. Specific occupation variables were more important than industrywide categories in predicting disease incidence and medical care utilization. Total probabilities were higher in the occupational than in the industrial classifications. The results of the ordinary least-squares estimation of various measures of illness severity rate and medical care utilization were found to be consistent with the equations estimating the incidence of various diseases across industry and occupation categories.

NTIS PB281724/AS; PRICE CODE: A06; 102 PAGES

2-059 THE 1977 QUALITY OF EMPLOYMENT SURVEY

Robert P. Quinn and Graham L. Staines
University of Michigan
Ann Arbor, Mich.

Contract J-9-M-7-0019

October 1978

Descriptors: ATTITUDES; SURVEYS; QUALITY OF WORK; WORK ENVIRONMENT; COMPARATIVE STUDIES

This report provides an overview of employment conditions in the United States in 1977, as reported by a national cross-section sample of 1,515 workers. Data are presented to allow comparison of results with prior surveys and thus measure the trends of change between three points over an 8-year period. The central objectives of the report are to (1) obtain a third measurement of the "core" variables (quality of employment, labor standards problems, job satisfaction, and importance ratings of job facets) and (2) extend the survey content to new areas. One new area introduced concerns the employment of the respondent's spouse, and the related topic of the impact of employment (especially work schedules and hours) upon family life. Basic descriptive statistics are presented in tables.

The researchers conclude that job satisfaction among workers declined significantly between 1973 and 1977. This decline was more pronounced in some groups than in others; it was particularly pronounced among college graduates. The lowest levels of job satisfaction in 1977 were reported by persons under 30, black workers, semiskilled blue-collar workers, and manufacturing employees.

NTIS PB290747/AS; PRICE CODE: A14; 314 PAGES

2-060 CONTEMPORARY VIEWS OF AMERICAN WORKERS TOWARD TRADE UNIONS

Thomas A. Kochan
Cornell University
Ithaca, N.Y.

Purchase order B-9-E-8-2899

October 1978

Descriptors: UNIONS; ATTITUDES; INDUSTRIAL RELATIONS; JOB SATISFACTION

This study used data from the 1977 Quality of Employment Survey to analyze workers' perceptions of trade unions, their general beliefs about trade unions, and their propensity to join unions. Beliefs about unions were the independent variables in regression analyses of a variety of demographic and job characteristics.

The major findings were: (1) Most workers see unions both as large powerful institutions and as effective representatives of their members' economic interests in collective bargaining. (2) One-third of the nonunion respondents (excluding managers and self-employed) would vote for a union if a representation election were held for their jobs. (3) Union members want their unions to emphasize traditional bread and butter issues and improve the internal administration of their unions. (4) More than 70 percent of union members are satisfied with their unions.

NTIS PB287340/AS; PRICE CODE: A04; 34 PAGES

2-061 LABOR FORCE TRANSITIONS AND UNEMPLOYMENT

Kim B. Clark and Lawrence H. Summers
Boston, Mass.

Purchase order B-9-M-8-1037

October 1978

Descriptors: LABOR FORCE PARTICIPATION; UNEMPLOYMENT; TURNOVER; STATISTICAL ANALYSIS; DATA SOURCES AND USE

This paper challenges conventional views of unemployment. The Bureau of Labor Statistics (BLS) gross changes data were used to analyze the structure of unemployment. Individuals in the Current Population Survey are in the sample for 4 months, then out for 8 months, then in the sample again for 4 months. The BLS prepares unpublished tabulations of gross changes—two-way tabulations of labor force status in the current month by labor force status in the preceding month. The results of the analysis suggest that failure to examine closely labor force transitions has led to a misleading picture of unemployment and the way the labor market functions in general.

There are four main conclusions. First, labor force transitions are the principal determinants of fluctuations in employment and unemployment. The vast majority of those newly employed come from outside the labor force, not from among the unemployed. Likewise, most spells of unemployment end with labor force withdrawal rather than unemployment. Second, traditional estimates of the duration of unemployment and the ease of job finding are seriously flawed by failure to take account of the 45 percent of all unemployment spells which end in labor force withdrawal. Third, reentrant unemployment is to a large extent the result of job ending followed by a brief spell outside the labor force. Many reentrants would almost certainly be better classified as job losers and leavers completing long spells of unemployment rather than as entrants starting a new spell of unemployment. Fourth, it appears that many of those counted as out of the labor force are functionally indistinguishable from the unemployed.

The implications of this study are that the magnitude of unemployment problems is much more severe than is currently recognized and that the welfare implications of unemployment have been greatly underestimated.

(For three other reports prepared under this purchase order, see the index.)

NTIS PB288044/AS; PRICE CODE: A03; 47 PAGES

2-062 THE ROLE OF THIRD PARTIES IN LABOR MANAGEMENT COOPERATIVE ENDEAVORS: A CONFERENCE REPORT

Gerald I. Susman
Pennsylvania State University
University Park, Pa.

Purchase order B-9-M-9-1689

November 1978

Descriptors: INDUSTRIAL RELATIONS; CONFERENCES; LABOR-MANAGEMENT CONSORTIA; ORGANIZATIONAL ENVIRONMENT; COLLECTIVE BARGAINING

This report summarizes a conference on the role of third parties in labor-management cooperation, held on September 18-19, 1978, by the National Center for Productivity and Quality of Working Life. The conference was designed as an exchange of views between union members, managers, and third parties on: (1) What third parties do in cooperative endeavors; (2) how union and management can better

assess third party contributions; and (3) the conditions under which third parties should be engaged.

Union, management, and third party participants met separately to develop issues for discussion, which were then presented to mixed groups with equal representation who exchanged views and made recommendations.

These views and recommendations concern: (1) The use and meaning of the term third party, where four different meanings were found to hamper communication among interested persons; (2) conditions for labor-management cooperation, on which the consensus was that the collective bargaining process was the appropriate background; (3) conditions under which third parties should be engaged; (4) the kinds of expertise and personal qualities third parties should possess; and (5) the need for more third parties, where participants found a greater need for training union and management in more effective evaluation of the contributions of third parties to cooperative endeavors.

NTIS PB290513/AS; PRICE CODE: A03; 38 PAGES

2-063 DEMOGRAPHIC DIFFERENCES IN CYCLICAL EMPLOYMENT VARIATION

Kim B. Clark and Lawrence H. Summers
Cambridge, Mass.

Purchase order B-9-M-8-1037

January 1979

Descriptors: EMPLOYMENT PATTERNS; LABOR FORCE PARTICIPATION; BUSINESS CYCLE; UNEMPLOYMENT; FISCAL POLICY

This paper examines demographic differences in patterns of employment variation over the business cycle, by decomposing changes in employment for various age-race-sex-marital status groups into changes in unemployment and participation.

Three primary conclusions emerge: (1) Both participation and unemployment must be considered in any analysis of cyclical changes in the labor market because either reduced employment or increased job seeking activity can increase the unemployment rate. (2) A disproportionate share of the burden of cyclical employment variation is borne by the young. (3) Failure to consider increases in participation has led to undue pessimism about the effects of aggregate demand policy on high unemployment groups. If participation did not surge, reduction in overall unemployment to its 1969 level would reduce the unemployment of almost all demographic groups to very low levels. In fact, increased participation is an additional advantage of economic stimulus.

(For three other reports prepared under this purchase order, see index.)

NTIS PB290751/AS; PRICE CODE: A03; 31 PAGES

2-064 A THEORETICAL MODEL OF SEGMENTED YOUTH LABOR MARKETS AND THE SCHOOL-TO-WORK TRANSITION

John Vrooman
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Austin, Tex.

Contract J-9-M-8-0116

March 1979

Descriptors: RETURNS ON EDUCATIONAL INVESTMENT; RETURNS ON TRAINING; LABOR DEMAND; TECHNOLOGY AND TECHNOLOGICAL CHANGE; OCCUPATIONAL STRUCTURE; WORKER TRAITS

This report develops a theoretical framework for the analysis of the effects of technologically induced labor market segmentation on the economic returns of such institutionally acquired forms of human capital as formal schooling and occupational training. The framework synthesizes advanced segmented labor market theory and theories of capital market bifurcation. The juxtaposition of these theories results in the treatment of technology and innovation as endogenous sources of segmentation of labor markets into sets of jobs that require different combinations of general and specific skills. The antecedents, hypotheses, and policy implications of this theory are expressed in such a manner as to facilitate their empirical analyses.

NTIS PB293257/AS; PRICE CODE: A03; 27 PAGES

2-065 CONCEPTS AND MEASURES OF STRUCTURAL UNEMPLOYMENT

Robert Lerman, Burt S. Barnow, and Phillip Moss
U.S. Department of Labor/ASPER
Washington, D.C.

March 1979

Descriptors: STRUCTURAL UNEMPLOYMENT; ECONOMIC ANALYSIS AND ECONOMETRICS

This paper attempts to improve current analyses of the structural unemployment problem. Linkages between the concepts of cyclical, frictional, seasonal, and structural unemployment are shown to make any precise definition of structural unemployment difficult. An analysis of measures of structural unemployment based on the common view that structural unemployment is substantial unemployment during good times is presented. Using this concept, the distribution of the structurally unemployed is derived. Data are from the March 1974 and March 1978 Current Population Surveys.

Although the incidence of structural unemployment is higher among black, young, and ill-educated workers, the majority of the structurally unemployed are whites, adults, and high school graduates. The paper concludes by discussing the implications of the structural unemployment numbers for employment and training programs and other governmental policies.

NTIS PB292496/AS; PRICE CODE: A03; 46 PAGES

2C. THE WORKERS' LOT

2-066 APPENDIX A: A STATISTICAL THEORY OF DISCRIMINATION IN LABOR MARKETS

Glen G. Cain and Dennis Aigner
U.S. Department of Labor/ASPER
Washington, D.C.

January 1975

Descriptors: RACIAL DISCRIMINATION; SEX DISCRIMINATION; LABOR ECONOMICS; WAGE DIFFERENTIALS; STATISTICAL ANALYSIS; ECONOMIC ANALYSIS AND ECONOMETRICS; METHODOLOGY

This paper examines the issue of economic discrimination from the perspective suggested by E. Phelps in "The Statistical Theory of Racism and Sexism." The objectives are to clarify the meaning of economic discrimination, to indicate how such discrimination might arise in labor markets, and to offer alternative statistical models that, compared with the Phelps' model, are both simpler and demonstrate a satisfactory economic discrimination theory that yields more plausible empirical implications. On empirical grounds it is argued that one feature of the Phelps' model—a race differential in reliability of test scores (representing productivity indicators)—is more plausibly introduced when blacks (or women) are assumed to have less reliable scores. When this reliability differential is combined with risk aversion by employers, a model is produced showing economic discrimination broadly consistent with empirical evidence. Finally, the combination of lesser reliability for blacks (or women) on tests with truncation of lower scoring applicants also reveals a kind of economic discrimination and reinforces the potential inequities that may stem from lower test reliabilities for minority groups.

The following disadvantages of the proposed models are recognized: (1) In the model that uses risk aversion, there are questions of the size of the risk premium and/or the doubtful empirical support for a "crossover" point at the lowest end of the indicator scale, where blacks earn more than whites for comparable indicator scores. (2) No thorough attempt has been made to test the model. (3) Many real world influences that affect economic discrimination—such as the presence of monopoly and/or monopsony, tastes for discrimination by employers and/or their systematic subjective undervaluations of the abilities of the discriminated groups—are not taken into account.

NTIS PB283225/AS; PRICE CODE: A03; 28 PAGES

2-067 BLACK-WHITE MALE EARNINGS AND EMPLOYMENT: 1960-1970

James P. Smith and Finis Welch
The Rand Corporation
Santa Monica, Calif.

Contract L-74-88

June 1975

Descriptors: BLACK/WHITE; MEN; EARNINGS; OCCUPATIONAL STRUCTURE

In this paper, several aspects of changes in relative black-white male earnings between 1960 and 1970 are examined, using the changes in census 1/100 samples.

A number of patterns are apparent. First, the large earnings differentials that existed in 1960 were partly eroded, but as of 1970 differences remained large. Second, black-white earnings ratios were highest for those estimated as having entered the labor market during the 1960's and higher for those entering between 1965 and 1970 than for the 1960-65 entrants. Third, the gains that occurred between 1960 and 1970 were broadly based across education and experience groups, although the most spectacular im-

provement was that of college educated blacks. Although some of the gains were due to the improved business cycle conditions in 1969 relative to 1959, some of the improvement could be attributed to increases in relative schooling attainment of blacks, migration of blacks from the South, and increases in relative black wages in the private sector.

In other sections of this paper, dispersion in the black and white income distributions is investigated. Income inequality for blacks, defined as the log variance of earnings, far exceeded that of whites. This could be attributed in part to the blacks' greater employment instability, variation in wages, and dispersion in schooling.

In the final section of this paper, occupational distributions for blacks and whites are examined. These distributions are beginning to converge, with young blacks looking very much like young whites in terms of the occupations they are entering.

NTIS PB255023/AS; PRICE CODE: A05; 79 PAGES

2-068 THE STABILITY OF THE RACIAL UNEMPLOYMENT DIFFERENTIAL

Robert J. Flanagan
University of Chicago
Chicago, Ill.

Contract L-74-131

July 1975

Descriptors: UNEMPLOYMENT; BLACK/WHITE; LABOR FORCE BEHAVIOR

This study pursued several lines of inquiry into the apparent stability of racial differentials in unemployment rates. Regression analysis was used to analyze the postwar behavior of racial unemployment rates and ratios, with particular attention to periods when the black-white unemployment ratio deviated from 2:1. Second, life-cycle and vintage changes in black and white unemployment experience during the 1960's were analyzed, controlling for schooling, age, and marital status. Third, recognizing the relatively large flows of new unemployment among blacks, recent unemployment due to quits, layoffs, and labor force entrance was analyzed.

The general stability of the racial unemployment ratio during the 1960's masked a change in the structure of black and white unemployment rates, with a fall in relative unemployment exposure of older blacks offset by an increase in the relative unemployment of black teenagers.

There were rising trends in black unemployment rates for 1968-73, after adjustment for cyclical and seasonal influences. Furthermore, racial unemployment differentials existed irrespective of the turnover flow generating unemployment—new entrants, reentrants, job losers, and job leavers.

NTIS PB256294/AS; PRICE CODE: A04; 75 PAGES

2-069 SIMULTANEOUS EQUATION MODELS OF SEX DISCRIMINATION

Solomon Polachek
University of North Carolina
Chapel Hill, N.C.

Purchase order B-9-M-5-1808

April 1976

Descriptors: WOMEN; SEX DISCRIMINATION; HUMAN CAPITAL; OCCUPATIONAL STATUS; WAGES; ECONOMIC ANALYSIS AND ECONOMETRICS; LABOR DEMAND; LABOR SUPPLY

This study developed models to help ascertain whether sex discrimination is predominantly supply or demand oriented. Much of the evidence on sex differences within the labor market was reviewed, sex differences in human capital acquisition were analyzed, and the interrelationships between the two were explored in simultaneous equation models.

This report concluded strongly that differences in the acquisition of human capital cannot be ignored in understanding sex differences in wages and occupational prestige. Whereas sex differences in wages and occupational status were attributed to differences in labor market experience and education, such human capital differences may stem from discrimination in the human capital market or from expectations of sex discrimination in the labor market. However, to equalize male/female labor market status, efficient government policy would encourage the equal acquisition of human capital both in school and in labor force behavior.

NTIS PB256803/AS; PRICE CODE: A04; 57 PAGES

2-070 OCCUPATIONAL SEGREGATION AMONG WOMEN: A HUMAN CAPITAL APPROACH

*Solomon Polachek
University of North Carolina
Chapel Hill, N.C.*

Purchase order B-9-M-5-1808

April 1976

Descriptors: WOMEN; SEX DISCRIMINATION; LIFE CYCLE; HUMAN CAPITAL; OCCUPATIONAL STRUCTURE

This study examined occupational segregation of women by viewing variation in their occupational choices over their life cycle in the context of human capital theory. It assumed the existence of varying rates of atrophy (i.e., depreciation occurring during periods out of the labor force) as well as varying compensating market rental rates per unit of human capital for each occupation.

To test the hypothesis that women with greater labor force intermittency are more likely to be in occupations with a low rate of atrophy, the researcher used simultaneous models. He found sizable correlations between home time and occupation, but could not identify cause and effect.

NTIS PB256804/AS; PRICE CODE: A03; 29 PAGES

2-071 THE TRENDS AND DETERMINANTS OF COMPENSATION FOR THE PRINCIPAL OFFICERS OF NATIONAL AND LOCAL UNIONS, 1962-1973

*Marcus Hart Sander
University of Wisconsin
Madison, Wis.*

Purchase order B-9-M-5-2068

May 1976

Descriptors: UNIONS; LEADERSHIP; INCOME DIFFERENTIALS; DATA SOURCES AND USE; INDUSTRIAL RELATIONS; WAGES; MANAGEMENT; ORGANIZATIONAL ENVIRONMENT

This report analyzes the compensation of the officers of local and national unions. The data were compiled from LM-2 and LM-3 forms collected by the Department of Labor covering financial and membership data (both cross-sectional and longitudinal) on 100 large locals, 100 randomly selected locals, 100 national unions, and 354 craft locals. The total information base relates the salaries of over 3,000 union officers to the financial characteristics of the organizations they administer.

This study is an important contribution to the industrial relations literature in its formulation of the union officer's salary models. Its results clearly demonstrate that a valid compensation model, replicable at different points in time, can explain a large part of the variance in union officers' salaries.

NTIS PB281077/AS; PRICE CODE: A15; 327 PAGES

2-072 LABOR MARKET DISCRIMINATION AGAINST THE HANDICAPPED: AN INITIAL INQUIRY

*Alan E. Fechter and Charles O. Thorpe, Jr.
The Urban Institute
Washington, D.C.*

Contract J-9-E-5-0062

November 1976

Descriptors: DISCRIMINATION; HANDICAPPED; WAGE DIFFERENTIALS; EMPLOYMENT; WORKER UTILIZATION

Data from the 1966 Survey of Economic Opportunity were used to estimate labor market discrimination against the handicapped with disabling conditions. Gross differences in labor market variables by handicap status of workers were adjusted for between-group differences in worker characteristics, and the remaining net differences were treated as estimates of labor market discrimination against the handicapped. These net differences, however, included the effect of factors other than those controlled for in this study, such as differences in supply decisions and in productivity between the handicapped and other persons. If any of these other factors are relevant, the net differences would overstate labor market discrimination.

Similar net differences in wage rates by sex and race showed that sex discrimination was substantially greater than race discrimination, and at least as great as, discrimination against the handicapped. If the net differences in wage rates by sex and race are unbiased estimates of labor market discrimination, these findings imply that focusing resources on reducing discrimination in wages would give highest priority to abolishing sex discrimination, less to race discrimination and still less to discrimination against the handicapped.

Further analysis revealed substantial variation in net differences in wage rates among the handicapped by type of condition. Generally, these tended to be largest for the handicapped with neurological, circulatory, and musculoskeletal conditions. The policy implication of these findings is that, while the average handicapped worker may experi-

ence relatively little discrimination, those with certain handicaps may experience a considerable amount of discrimination. However, evidence on this point was inconclusive.
NTIS PB265226/AS; PRICE CODE: A05; 86 PAGES

2-073 ECONOMIC AND SOCIOCULTURAL VARIABLES AFFECTING RATES OF YOUTH UNEMPLOYMENT, DELINQUENCY AND CRIME

Daniel Glaser
University of Southern California
Los Angeles, Calif.

Purchase order B-9-M-8-0654

February 1978

Descriptors: LITERATURE REVIEW; UNEMPLOYMENT; YOUTH; ECONOMIC AND SOCIAL CONDITIONS

This paper is one of several commissioned for presentation at a conference on "Employment Statistics and Youth," held at the Institute of Industrial Relations at the University of California at Los Angeles, February 11-12, 1978. (See the following seven items for other papers.)

This paper reviews studies on four aspects of the relationship of youth crime rates to economic conditions: (1) The correlation of crime rates with economic and ecological variables for neighborhoods, cities, and States; (2) the correlation of official or admitted offense rates for individuals with indexes of their socioeconomic class; (3) changes in crime rates with fluctuations in the business cycle, especially in unemployment rates; and (4) the economic or employment status of offenders at the time of their offense.

Usually there was an inverse correlation between economic well-being and delinquency or crime, but its degree varied greatly with the different indicators and the control variables. Overall, the author concludes, both crime and employment of U.S. youth today are fostered by society's age group segregation, separation of students by school performance, and counterproductive drug laws.

NTIS PB284177/AS; PRICE CODE: A03; 34 PAGES

2-074 YOUTH PARTICIPATION RATES AND THE AVAILABILITY OF JOBS

Francine D. Blau
University of Illinois
Urbana, Ill.

Purchase order B-9-M-8-0649

February 1978

Descriptors: YOUTH; NATIONAL LONGITUDINAL SURVEYS; BLACK/WHITE; UNEMPLOYMENT; LABOR FORCE PARTICIPATION; CONFERENCES; MALE/FEMALE

This paper, presented at a 1978 conference on "Employment Statistics and Youth" (see the preceding item), uses data from the National Longitudinal Surveys to examine the relationship between area unemployment rates and the labor supply behavior of youth aged 18 to 24 in 1970.

The net effect of the unemployment rate on the probability of labor force participation in 1970 was negative. Net discouragement appeared to be greater among young women than among young men, and to be larger among

blacks than among whites. As local unemployment rates tend to be correlated over time, the coefficient on the unemployment rate variables in the participation regressions is held to approximate a long-term supply response to persistent intercity differences. The unemployment rate had no significant effect on the probability of labor force entry or exit between 1970 and 1971. The findings suggest that ups and downs of the business cycle would not have a large net effect on the labor force participation of youth, but that prolonged periods of high unemployment could produce net discouragement for this age group. At the local level, the results suggest the efficacy and importance of policies designed to stimulate aggregate demand in depressed labor markets.

NTIS PB284189/AS; PRICE CODE: A02; 22 PAGES

2-075 DO YOUTH REALLY WANT TO WORK? A COMPARISON OF THE WORK VALUES AND JOB PERCEPTIONS OF YOUNGER AND OLDER MEN

Patricia Miller and William Simon
University of Houston
Houston, Tex.

Purchase order B-9-M-8-0681

February 1978

Descriptors: YOUTH; ATTITUDES; WORK ETHIC; JOB SATISFACTION; MEN; AGE DIFFERENCES

This paper, presented at a 1978 conference on "Employment Statistics and Youth" (see the previous two items), uses data from a national random sample of 1,992 men aged 18 to 49 to examine the work values of youth.

A varimax factor analysis of 27 items concerning work values produces six factors: Intrinsic work rewards, economic rewards, security rewards, social rewards, interpersonal rewards, and anti-work ethic.

Examination of a comparable set of items concerning workers' perceptions of access to these rewards indicates that older men consistently, and sometimes substantially, report greater satisfaction than younger men in their present jobs in terms of these factors. Unemployment is not associated with work values. Ethnic minorities appear to undervalue intrinsic work rewards and to overvalue economic rewards, security rewards, and the antiwork ethic. On the whole, however, the analysts conclude there is substantial continuity in work values held by younger and older men.

NTIS PB284532/AS; PRICE CODE: A03; 32 PAGES

2-076 THE RELATIONSHIP BETWEEN YOUTH EMPLOYMENT AND FUTURE LABOR MARKET EXPERIENCE

Wayne Stevenson
University of Utah
Salt Lake City, Utah

Purchase order B-9-M-8-0650

February 1978

Descriptors: YOUTH; TRANSITION FROM SCHOOL TO WORK;
UNEMPLOYMENT; LABOR FORCE PARTICIPATION

This paper, presented at a 1978 conference on "Employment Statistics and Youth" (see the prior three items), explores the long-term impact of youth's early labor market experience.

In the transition from school to work, most teenagers and young adults experience some unemployment or withdraw from the labor force. Although the data presented here show that the probability of being unemployed declines rapidly with age, suggesting a fairly short-term problem, jobless periods, particularly for out-of-school youth, are associated with significant losses in subsequent employability and earnings.

NTIS PB283718/AS; PRICE CODE: A02; 22 PAGES

2-077 FAMILY STATUS AND LABOR FORCE PATTERNS

*Martha Hill
University of Michigan
Ann Arbor, Mich.*

Purchase order B-9-M-8-0655

February 1978

Descriptors: FAMILIES; SOCIAL CHANGE; SOCIODEMOGRAPHIC CHARACTERISTICS; YOUTH; STATUS; LABOR FORCE BEHAVIOR

This paper, presented at a 1978 conference on "Employment Statistics and Youth" (see the four previous items), explores the association between recent changes in youth's labor force behavior and concomitant changes in their family status; for example, the decreasing proportion of youth coming from two-parent families, the rising proportion of youth forming one-person or one-parent households, and the increasing proportion of young married couples that do not have children.

Using 1975 data from the Panel Study of Income Dynamics, the paper emphasizes the analysis of differences among individuals at a single point in time. It also investigates changes over time in the same individual's labor force and family status.

NTIS PB287613/AS; PRICE CODE: A03; 42 PAGES

2-078 THE MEASUREMENT AND INTERPRETATION OF TEENAGE UNEMPLOYMENT IN THE UNITED STATES AND OTHER COUNTRIES

*Beatrice G. Reubens
New York, N.Y.*

Purchase order B-9-M-8-0658

February 1978

Descriptors: YOUTH; UNEMPLOYMENT; LABOR FORCE; INTERNATIONAL COMPARISONS; DATA SOURCES AND USE; EMPLOYMENT AND TRAINING POLICY; EUROPE

This paper, presented at a 1978 conference on "Employment Statistics and Youth" (see the five previous items),

uses data gathered by the author to analyze differences in policies and programs for the employment of youth among the major industrialized countries.

It shows that other advanced countries are less concerned about all-inclusive measurement of unemployment and are more concerned about providing programs than the United States. Because of their recent experience with full employment, these countries are more resistant than the United States to accepting high rates of unemployment as normal for youth. European countries tend to ignore most unemployment among in-school teenagers during the school year.

Although the labor force survey is a preferred method of collecting unemployment statistics, countries with fairly complete registration of unemployment and active local employment service organizations may be in good position to keep track of monthly changes in local unemployment and to recommend and administer youth programs. Whether such registration statistics could be used in the United States is doubtful, because the facilitating circumstances are absent. European countries focus less sharply on disadvantaged groups, preferring to plan for all unemployed youth.

NTIS PB284161/AS; PRICE CODE: A03; 32 PAGES

2-079 CONTROL GROUP SELECTION

*Ernst W. Stromsdorfer and Teh-Wei Hu
Pennsylvania State University
University Park, Pa.*

Purchase order B-9-M-8-0661

February 1978

Descriptors: EXPERIMENTAL DESIGN; STATISTICAL ANALYSIS; ASSESSMENT AND EVALUATION; COST EFFECTIVENESS

This paper, presented at the 1978 conference on "Employment Statistics and Youth" (see the previous six items), discusses the relative merits of classical experimental design versus quasi-experimental design. It shows the statistical and econometric problems inherent in quasi-experimental design. It concludes that these problems in general cannot be surmounted by econometric techniques and recommends the use of classical experimental designs if cost and time permit.

NTIS PB283717/AS; PRICE CODE: A02; 22 PAGES

2-080 CONFERENCE REPORT ON YOUTH UNEMPLOYMENT: ITS MEASUREMENT AND MEANING

*University of California
Los Angeles, Calif.*

Contract J-9-M-8-0027

1978

Descriptors: YOUTH; CONFERENCES; UNEMPLOYMENT; DATA SOURCES AND USE; TRANSITION FROM SCHOOL TO WORK; WORK ATTITUDES; ARMED FORCES; IMPACT OF EMPLOYMENT AND TRAINING POLICIES; LABOR MARKET INFORMATION; DISCRIMINATION

This volume contains 13 of 22 papers commissioned for the Conference on Employment Statistics and Youth that was held at the Institute of Industrial Relations, UCLA, February 11-12, 1978.

The first two papers focus on who is counted and the dynamic aspects underlying our static measures. In "Counting Youth: A Comparison of Youth Labor Force Statistics in the Current Population Survey and the National Longitudinal Surveys," Michael Borus, Frank Mott, and Gilbert Nestle document how differences in survey techniques can make drastic differences in measured labor force status. Ralph Smith and Jean Vanski, in the "Volatility of the Teenage Labor Market: Labor Force Entry, Exit, and Unemployment Flows," demonstrate that for youth even more than adults, the point-in-time measures of employment and unemployment mask an enormous flux as youth move into and out of jobs and the labor force.

The next five papers examine labor market, institutional, and societal factors that affect the measured rates of employment and unemployment. Stanley Stephenson's analysis, "The Transition from School to Work with Job Search Implications," examines the question whether unemployment during the early years in the labor force is constructive. In "The Establishment of Stable and Successful Employment Careers: The Role of Work Attitudes and Labor Market Knowledge," Paul Andrisani examines the attitudinal and informational underpinnings of labor market participation by youths, addressing questions such as how much they know about labor market opportunities. Daniel Glaser's "Economic and Sociocultural Variables Affecting Rates of Youth Unemployment, Delinquency and Crime" discusses the impact of unemployment on crime rates and the extent that illegal activities may provide an unreported alternative to gainful employment. Paul Osterman's paper on "Racial Differentials in Male Youth Unemployment" assesses all of the factors, including discrimination, which result in the extremely high levels of youth unemployment as well as the consequences of these severe problems. "The Effects of Child Labor Laws and Youth Unemployment," by Daniel Mitchell and John Clapp analyzes the legal impediments to youth unemployment and the way these affect measured rates of employment and unemployment.

The next four papers discuss the direct and indirect impacts of governmental activities. Richard Cooper's "Youth Labor Markets and the Military" suggests the substantial and frequently ignored effect of armed forces requirements and policies on civilian employment and unemployment statistics. In "Direct Effects of Employment and Training Programs on Employment and Unemployment: New Estimates and Implications for Employment Policy," Charles and Mark Killingsworth estimate the impacts of employment and training enrollments on the official employment and unemployment counts. "Social Development and Employment: An Evaluation of the Oakland Youth Work Experience Program," by Delbert Elliott and Brian Knowles, explores the effects of a "model" work experience program on subsequent employment and earnings. Ernst Stromsdorfer and Teh-Wei Hu discuss the ways in which program impacts on employment and earnings can be assessed in "Control Group Selection" (There is a separate abstract of this paper under contract B-9-M-8-0661.)

The final two papers focus on the use of employment and unemployment statistics in addressing questions about the scale of needed governmental initiatives and the distribution of resources. "Methods of Allocating Funds to Alleviate Teenage Unemployment Problems," by Joseph Cordes and Robert Goldfarb examines the formulae by which youth employment and training resources are distributed and the data bases to which these formulae are applied. Paul Flaim and Paul Ryscavage use available labor market statistics to estimate the job deficit for youth in "Lowering Youth Unemployment: How Much and at What Cost?"

The papers do not yield a coherent set of policy recommendations. Rather, they are suggestive of the deficiencies in youth employment statistics, some of the necessary considerations of their interpretations, and many of the issues involved in their application to assess program impacts. THIS REPORT IS AVAILABLE FROM THE GOVERNMENT PRINTING OFFICE, STOCK NO. 029-000-00346-7.

2-081 THREE PATHS FROM DISABILITY TO POVERTY

Walter Y. Oi
University of Rochester
Rochester, N.Y.

Contract J-9-M-5-0119

June 1978

Descriptors: DISABILITIES; POVERTY; SUPPORTIVE SERVICES; WAGE DIFFERENTIALS; ECONOMIC FORECASTING

Theoretically, paths from disability to poverty correspond to ways in which an individual's stock of health capital might constrain his maximum utility: (1) It can directly reduce utility in a pure consumption model. (2) It can indirectly reduce utility by reducing his market productivity. (3) It can indirectly reduce utility by contracting his potential time endowment.

The author of this study developed a basic model by extending the labor supply model to allow for the influences of supply responses by other family members, inhibiting effects due to the time and money costs of the journey to work, and allocations of work effort over the life cycle.

His critical review of the empirical methodologies in previous studies of the impacts of disability concluded that the use of dummy variables is highly questionable, in light of data from several tabular comparisons.

Quantitative implications of the theoretical models were explored by using 1972 data from the Michigan Panel Survey of Income Dynamics to review the gross differences between healthy and disabled men (in earnings, income, hours worked, employment status, etc.) in the light of the three ways in which disability affects labor market activity. Because time differentials are rarely directly measured, he used a somewhat indirect method of model calibration to infer time endowments: (1) Results from earlier studies of labor supply were used to estimate the substitution and income elasticities; (2) the time diary data analyzed by Stafford and Duncan were used to estimate budget shares; and (3) the two sets of estimates were combined to construct estimates of labor force participation and labor supply. These crude calculations led to the conclusion that disability mainly affects its victims by contracting the potential time endowments available for work and leisure.

NTIS PB282437/AS; PRICE CODE: A05; 96 PAGES

2-082 BARRIERS TO INTERMETROPOLITAN MOBILITY OF LAWYERS

John Siegfried, Malcolm Getz, and Terry Calvani
Vanderbilt University
Nashville, Tenn.

Purchase order B-9-J-7-0350

August 1978

Descriptors: LAWYERS; GEOGRAPHIC MOBILITY;
OCCUPATIONAL LICENSING; INCOME DIFFERENTIALS;
EARNINGS; LITERATURE REVIEW

This study estimated the supply of lawyers available to partnership law firms using 1972 data for 69 Standard Metropolitan Areas. The model controlled for differences in metropolitan areas, such as cost of living and environmental characteristics, which could influence the relative earnings of lawyers in long-run equilibrium.

A review of the literature on the effect of licensure restrictions on professional earnings yielded the hypotheses that bar examination failure rates, the absence of reciprocity, and nonresident bar admission fees were each positively correlated with lawyers' earnings. The empirical results provided no support for the hypotheses. The sole important determinant of geographic earnings differentials among associate attorneys in partnerships in 1972 appeared to be local professional and technical employment opportunities for females, although environmental characteristics were important as a group.

NTIS PB286714/AS; PRICE CODE: A04; 62 PAGES

2-083 STUDY OF THE NUMBER OF PERSONS WITH RECORDS OF ARREST OR CONVICTION IN THE LABOR FORCE

Neal Miller
Kensington, Md.

Purchase order B-9-M-8-4119

November 1978

Descriptors: LABOR FORCE PARTICIPATION; EX-OFFENDERS;
INFORMATION SYSTEMS; DATA SOURCES AND USE

This study reviewed estimates of the number of persons with criminal records who are labor force participants and provided more reliable estimates of that number by using three separate estimation procedures: (1) The number of persons held in the Federal Bureau of Investigation (FBI) criminal record files was determined; adjusted through use of FBI data to exclude those probably deceased (based on mortality tables) and those deported as illegal aliens. (2) The result was extrapolated to the universe of persons with criminal records from the estimated number of persons held by State and local criminal record centers in California, New Jersey, and New York by comparing the ratio of arrests in those States to all U.S. criminal arrests. (3) The probability of arrest rates for males born in 1945, residing in Philadelphia from their 10th to 18th birthdays, taken from an ongoing research study, was adjusted for urban-rural, black-white, and male-female differences and then applied to census population data to provide another offender universe estimate. Labor force participation rates for the U.S. population of black and white males were applied to the statistics derived from this triangulation estimation procedure.

At least 36 million and probably 40 million persons were estimated to have criminal arrest records. Of these, between 26 and 29 million were in the labor force. An additional 3.5 million persons with records who were not in the labor force can be expected to reenter the labor force in the

future. Population groups with higher than average numbers of offenders included the disadvantaged, blacks, veterans, and persons with alcohol or drug abuse related handicaps.

NTIS PB291381/AS; PRICE CODE: A03; 46 PAGES

2-084 ABNORMAL YOUTH UNEMPLOYMENT AND IMPERFECT INFORMATION

William R. Johnson
University of Virginia
Charlottesville, Va.

Contract J-9-M-8-0114

March 1979

Descriptors: YOUTH; UNEMPLOYMENT; TURNOVER;
MOTIVATION; EARNINGS; SOCIAL RELATIONSHIPS

This paper examines the theoretical basis for the "excessive" job mobility among certain groups of young workers that may lead to frequent spells of unemployment and low lifetime earnings. It presents an economic model of job finding by young workers, in an attempt to describe both "normal" behavior of young workers in entering the labor force and "pathological" cases of excessive job mobility and unemployment. Emphasis is on imperfect information, especially about the workers' own tastes and abilities. Theoretical results are derived by assuming that workers maximize expected earnings subject to the constraints facing them. By varying the givens of the problem (e.g., the degree or source of ignorance), the effects on job mobility and lifetime earnings are derived.

The results show that ignorance about one's tastes and abilities contributes to the duration of the high mobility period at the outset of a worker's worklife. Therefore, workers with greater knowledge along these lines will spend less time moving between jobs and unemployment in the period between jobs. Their lifetime earnings will also be higher.

The assumption that information about the labor market is generated by the young worker's social milieu, parents and neighbors is also examined, because the feedback effect of a low level of labor market achievement by one generation may restrict the information available to the next generation, and hence its attainment. Such a low attainment "trap" may be hard to break out of.

NTIS PB292683/AS; PRICE CODE: A03; 31 PAGES

2-085 BLACK YOUTH AND THE LABOR MARKET: THE UNEMPLOYMENT DILEMMA

Gail E. Thomas
CISA, Inc.
Washington, D.C.

Contract J-9-M-8-0113

March 1979

Descriptors: YOUTH; BLACKS; UNEMPLOYMENT;
DISADVANTAGED; LABOR MARKET; SUPPORTIVE SERVICES;
INSTITUTIONAL CHANGE; ORGANIZATIONAL ENVIRONMENT

This paper examines the problem of black youth unemployment from a theoretical perspective. Traditional sociological and economic theories applicable to the problems of

unemployment and occupational and status achievement are initially reviewed. Next, the concept of "sponsorship mobility" formulated by Ralph Turner (1970) is utilized and elaborated as a policy approach to dealing with the problem of black and disadvantaged minority youth unemployment. The basic hypothesis for the policy approach suggested is that: An improvement in employment opportunity for black

and other disadvantaged youth can be facilitated through the establishment of functional support systems and sponsorship groups that effectively mediate the relationship between disadvantaged youth and the employment structure. Various strategies for formulating support systems and sponsorship groups are offered.

NTIS PB293266/AS; PRICE CODE: A04; 58 PAGES

3A. NONDISCRIMINATION PROGRAMS

3-001 THE ECONOMICS OF DISCRIMINATION: THE IMPACT OF PUBLIC POLICY

George R. Burman, John P. Gould, and Robert B. McKersie
University of Chicago
Chicago, Ill.

Contract L-71-172

June 1972

Descriptors: GOVERNMENT PROGRAM IMPACT; EQUAL EMPLOYMENT OPPORTUNITY COMMISSION; DISCRIMINATION; CONTRACT COMPLIANCE; MINORITIES; EMPLOYMENT; STATE AND LOCAL GOVERNMENTS

This paper describes the Equal Opportunity Commission's method of data gathering and discusses a utility model of employer, employee, and consumer discrimination. The paper also discusses the theory of government-imposed costs as a method of altering minority employment patterns, using both single and simultaneous equation models. The impact of programs of the Office of Federal Contract Compliance (OFCC) and the State Fair Employment Practice Commissions (FEPC's) on minority employment and occupational patterns is tested by the use of cross-section regression models.

The report concludes that the OFCC has had a discernible but not overwhelming impact on black employment. Certain agencies (Agriculture, General Services Administration, Interior, and the Veterans Administration) have been more successful than others. The compliance process has had a more favorable impact on males than on females, and no impact on Spanish Americans. FEPC's have seemed to be eliciting a tokenism reaction and have not had a significant impact on black employment.

NTIS PB253171/AS; PRICE CODE: A09; 183 PAGES

3-002 MEASURING THE EFFECT OF THE FEDERAL GOVERNMENT ON THE CHANGE IN THE LABOR MARKET POSITION OF BLACK MALE WORKERS RELATIVE TO WHITE MALE WORKERS 1966 TO 1970

Orley Ashenfelter and James J. Heckman
U.S. Department of Labor/ASPER
Washington, D.C.

April 1973

Descriptors: GOVERNMENT PROGRAM IMPACT; CONTRACT COMPLIANCE; BLACK/WHITE; EMPLOYMENT OPPORTUNITIES; WAGES; EQUAL EMPLOYMENT OPPORTUNITY ACT (1972); OCCUPATIONAL STRUCTURE

This study used the 1966 and 1970 reports to the Equal Employment Opportunity Commission (EEOC) for a matched sample of firms to analyze whether the position of black male workers relative to white male workers had improved more among firms with government contracts than among other firms. It also analyzed the effects of various factors other than government influence.

It found that government effort brought greater gains to blacks in employment (1.7 percent), occupational position (0.1 percent), and wage share (1.8 percent) over the 1966-70

period, thus significantly increasing the extent of integration in American industry.

Geographic region appeared to be the most important nongovernment factor in blacks' relative employment. Changes in black relative employment were not significantly related to size of firm or to the rate of growth of employment of the firm. The 1966-70 growth in the relative employment of black workers was smaller in firms where the 1966 ratio of black to white employment was highest.

NTIS PB284956/AS; PRICE CODE: A03; 28 PAGES

3-003 THE INFLUENCE OF GOVERNMENT ANTIDISCRIMINATION PROGRAMS: ACTUAL AND POTENTIAL IMPACT

Robert J. Flanagan
Cornell University
Ithaca, N.Y.

Contract J-9-M-5-0040

February 1975

Descriptors: LITERATURE REVIEW; DISCRIMINATION; CONTRACT COMPLIANCE; MINORITIES; METHODOLOGY; GOVERNMENT CONTRACTS; GOVERNMENT PROGRAM IMPACT

After reviewing the pattern of improvement in the relative status of minorities since the 1960's, this study reviewed the methods used in several studies that attempted to measure the progress of minorities and determined contributing factors. The difficulty in isolating the specific effects of a single program from the effects of other programs with similar objectives was discussed with reference to the contract compliance program of the Office of Federal Contract Compliance (OFCC).

The impact of recent Government antidiscrimination activity was deemed still uncertain, but the methodological review of several efforts to measure this impact indicates that it probably was small. Studies of the marginal impact of the OFCC have yielded estimates that are most usefully regarded as upper bounds on the actual impact. The potential scope of the OFCC program was found to be smaller than sometimes believed, but larger than the program's achievements to date.

NTIS PB256284/AS; PRICE CODE: A03; 46 PAGES

3-004 ARTIFICIAL BARRIERS TO EMPLOYMENT OF CRIMINAL OFFENDERS

Neal Miller
Washington, D.C.

Purchase order OAS 74-3341

May 1975

Descriptors: CRIMINAL JUSTICE PROCESS; EX-OFFENDERS; EMPLOYER ATTITUDES; COMPREHENSIVE EMPLOYMENT AND TRAINING ACT (CETA); EMPLOYMENT OPPORTUNITIES

The emphasis of this study was what might be done for ex-offenders under Title III of the Comprehensive Employment and Training Act (CETA).

An analysis of the artificial barriers to employment facing the offender showed that much of the information provided by arrest records is irrelevant and improperly used: the

applicant's suitability should be determined from more relevant information such as work history. It was concluded that discrimination of this sort can be fought by changing employers' beliefs in the relevancy of criminal records and by limiting the availability of criminal records to employers.

Numerous recommendations were made for action by the Department of Labor through the Public Employment Program under CETA, through coordination of other programs such as Job Corps and apprenticeship, through work with other Federal agencies to increase access to Federal civil service employment, State and local government employment and private sector employment under their jurisdictions. The Department of Labor should continue efforts to encourage repeal of State and local governmental barriers to offender employment and to inform employers of the illegality of present barrier practices. It should also work with the criminal justice system to develop new manpower-linked criminal justice models, and to link manpower services with bail agencies or probation.

NTIS PB256654/AS; PRICE CODE: A05; 86 PAGES

3-005 AN ESTIMATE OF THE IMPACT OF HOMETOWN PLANS ON MINORITY MEMBERSHIP IN CONSTRUCTION UNIONS

*Saul Pleeter
Cornell University
Ithaca, N.Y.*

Contract J-9-M-5-0040

May 1975

Descriptors: GOVERNMENT PROGRAM IMPACT; CONSTRUCTION INDUSTRY; UNIONS; AFFIRMATIVE ACTION PLANS; MINORITIES

This study sought to evaluate a Federal program to increase minority participation in the construction trades—"Hometown Plans" (voluntary tripartite agreements among local unions, contractors, and local minority representatives). The major question was whether minority membership increased significantly more in participating unions than in those in cities not affected by the plans.

The operation of the program was described, the forces that make the program effective were determined, and a theoretical model of the construction union with respect to the selection of the number and characteristics of new members was presented.

The analysis suggested hometown plans have a positive influence on minority participation, but did not resolve the question of whether the plans gave minorities an equal probability of referral, and hence increased earnings.

NTIS PB254937/AS; PRICE CODE: A03; 45 PAGES

3-006 THE ESTIMATED IMPACT OF ANTIDISCRIMINATION LAWS AIMED AT FEDERAL CONTRACTORS

*Morris Goldstein and Robert S. Smith
Cornell University
Ithaca, N.Y.*

Contract J-9-M-5-0040

May 1975

Descriptors: EQUAL EMPLOYMENT OPPORTUNITY COMMISSION; DISCRIMINATION; GOVERNMENT CONTRACTS; EARNINGS

This study of compliance for Federal contractors under Executive Orders 11246 and 11375—which, respectively, prohibit discrimination in employment and require affirmative action on pain of loss of existing contracts and future disbarment from contracting, focused on changes in the relative economic position of minorities and women. Contracting agencies have primary responsibility for compliance activities and the overall program is monitored and coordinated by the Office of Federal Contract Compliance of the Department of Labor.

The study explored what questions can be answered with available data; presented a model for estimating the impact of the programs, given current data; and tested the model with data from the 1970 and 1972 reports (on form EEO-1) for nearly 75,000 establishments that reported in both years, separating reports from contractors and noncontractors and from firms with a compliance review and those without such a review. The data showed changes in employment by occupational group for black males and females, white males and females, and "other minority groups." A dummy variable was used to estimate geographic differences in changes in employment for these groups.

Considering the combined effect of a Government contract and a compliance review, it was found that the primary "gainers" were males, both black and white, the primary "losers" were white females and other minorities, and the group left most unaffected were black females. For gains by white males, no satisfactory explanation could be adduced. The researchers hypothesized that the other findings could be explained by the emphases of the programs until April 1972 on racial rather than sexual discrimination and on blacks rather than "other minorities."

NTIS PB255912/AS; PRICE CODE: A04; 53 PAGES

3-007 EMPLOYMENT QUOTAS FOR MINORITIES

*Finis Welch
The Rand Corporation
Santa Monica, Calif.*

Contract L-74-88

June 1975

Descriptors: COST EFFECTIVENESS; BLACK/WHITE; EARNINGS; WORKER UTILIZATION; AFFIRMATIVE ACTION PLANS; EFFECTIVENESS OF PROGRAMS; OCCUPATIONAL STRUCTURE

This study attempted to estimate the effects of affirmative action in the economy and among Federal contractors subject to the equal employment provisions of Executive Orders 11246 and 11375. Affirmative action, or "employment quotas," when rigorously enforced, created shortages of the designated workers (skilled minority workers in this case), generated wage premiums for them, and also created rationing problems. This report explored one solution to the rationing problem; "skill bumping," or promoting unskilled minority workers to skilled job classes. It employed a model to estimate the impact on the relative earnings of blacks, taking account of differences in wages, employment pat-

terns, and social costs under a variety of assumptions concerning substitution and demand elasticities.

The researcher concluded that the effects of rigorously enforced quotas without skill bumping could differ radically from their effect with skill bumping. Without skill bumping, quotas were seen as expensive means of redistributing income from majority to quota-designated minority workers. With skill bumping, the social costs of redistributing income were much less, but could rise rapidly if the promoted worker's productivity was impaired (which need not happen).

Without more empirical evidence than available, he found the theoretical case for the proposition that quotas increase returns for minorities to acquire skills appeared no stronger than for the contrary case in which quotas create incentives for long-run exacerbation of minority/majority skill differences.

NTIS PB255024/AS; PRICE CODE: A04; 53 PAGES

3-008 EMPLOYMENT QUOTAS FOR MINORITIES, AGAIN

*Duran Bell
Laguna Beach, Calif.*

Purchase order B-9-E-7-2047

October 1977

Descriptors: AFFIRMATIVE ACTION PLANS; MINORITIES; DISCRIMINATION; METHODOLOGY; ASSESSMENT AND EVALUATION; COST-BENEFIT ANALYSIS; GOVERNMENT PROGRAM IMPACT

In section I, this paper briefly discusses the context in which quotas have emerged as mechanisms for use by Federal agencies. In section II, several of the critical assumptions of a paper by Finis Welch (*Journal of Political Economy*, August 1976; see the previous item) are shown to be indefensible on the basis of fact and/or on logical grounds, with important consequences for the social cost implications of quotas. It is also shown that if discrimination coefficients are not identical among employers, the post-quota equilibria suggested by Welch are not *reachable* by competitive wage-supply adjustment mechanisms, when all other assumptions of the model are accepted. Moreover, the Welch model is a static model and, hence, cannot be used in the analysis of a quota system that focuses on new labor force entrants. Section III contains a discussion of an alternative model of affirmative action, from which are deduced several useful insights into the administration of quotas.

NTIS PB283569/AS; PRICE CODE: A03; 28 PAGES

3-009 THE GOVERNMENT'S IMPACT ON THE LABOR MARKET STATUS OF BLACK AMERICANS: A CRITICAL REVIEW

*Richard Butler and James J. Heckman
University of Chicago
Chicago, Ill.*

Contract J-9-M-6-0174

April 1978

Descriptors: GOVERNMENT PROGRAM IMPACT; LABOR SUPPLY; OCCUPATIONAL STATUS; BLACK/WHITE; RACIAL DISCRIMINATION; LABOR DEMAND

This report reviews recent evidence on the impact of antidiscrimination legislation on the labor market status of black Americans. Two types of evidence are considered, analyses of aggregate time series of relative black status, and microeconomic analysis of the impact of particular programs.

Freeman's influential time series evidence on governmental impact on black status is shown to be less convincing than is generally assumed in popular discussions. Analysis suggests that Freeman's measured impact of government programs on black status confuses supply shifts related to Federal transfer program activity with demand shifts related to Federal antidiscrimination activity.

The best available micro studies document considerable evidence of governmental antidiscrimination activity at the firm level, but no evidence on the question of governmental impact on the status of black workers. Some studies show weakly perverse effects of legislation. Others appear to find favorable impacts of government activity but on closer inspection are shown to be inherently ambiguous as to their interpretation.

Although it is concluded that the labor market has improved dramatically for young black workers in recent years, the data are too crude to support this conclusion, especially for the aggregate black workers.

NTIS PB291872/AS; PRICE CODE: A04; 70 PAGES

3-010 FINAL REPORT ON THE IMPACT OF OFCC ON THE CHICAGO LABOR MARKET

*James J. Heckman and Kenneth Wolpin
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Chicago, Ill.*

Contract J-9-M-6-0174

April 1978

Descriptors: AFFIRMATIVE ACTION PLANS; BLACKS; INDUSTRY PRACTICES; EMPLOYER PRACTICES AND POLICIES; CONTRACT COMPLIANCE

This paper explores the impact of the affirmative action effort. An attempt is made to disentangle the permanent (anticipated) and the random (unanticipated) components that may be relevant to an assessment of the Office of Federal Contract Compliance (OFCC). The aggregate employment results are augmented with occupational disaggregations. An attempt is made to discern the differential success of monitoring agencies. Overall differentials are small. However, the agency disaggregations do demonstrate some wide variations in "success." Information is derived from yearly EEO-1 reports filed by firms with the Equal Employment Opportunity Commission. Two independently matched subsamples consisting of 2,230 establishments for 1968-70 and 3,393 establishments for 1972-74 are extracted.

The most striking result is the rather small magnitude of the government contract effect in each of the 3 years. Although location itself is a highly relevant determinant of employment patterns, its partial correlation with contract

status is trivial. Firm size is also important, with multiplant firms being much more likely to employ black males and black females. Again, however, its partial correlation to contract status is not very strong. Regression estimates indicate that government contractors that employed no black males in 1969 were 10.5 percent more likely to employ at least one black male in 1970.

NTIS PB291927/AS; PRICE CODE: A03; 26 PAGES

3B. SAFETY AND HEALTH PROGRAMS

3-011 COMPENSATING WAGE DIFFERENTIALS AND HAZARDOUS WORK

Robert S. Smith
U.S. Department of Labor/ASPER
Washington, D.C.

August 1973

Descriptors: OCCUPATIONAL SAFETY AND HEALTH; WORKERS' COMPENSATION; WAGE DIFFERENTIALS; WORK INJURIES

In judging the optimality of government safety legislation, it is important to know if wage rates reflect workers' ex post losses from work injuries. This study set the parameters of a basic wage equation that incorporates the risk of death, permanent impairment and temporary disability, and tested various specifications on a sample of 3,183 white males.

The results indicated that the probability of death may be fully reflected in wage rates, but evidence of compensating differentials related to nonfatal injuries was scant. If replications of this study produce similar results, one would be tempted to conclude that lack of employee information about nonfatal injuries (their severity and associated, uncompensated losses) prevents wage rates from fully reflecting expected losses from injury. If this is found to be the case, it implies that employers are not compelled to take into account the full costs associated with an injury in making their decisions about how much safety resources to employ; hence, the work injury rate will be higher than is socially optimal. In this event, governmental interference in the market—by means of some sort of information program, safety legislation, or "tax" on injuries—may be justified.

NTIS PB266849/AS; PRICE CODE: A03; 43 PAGES

3-012 THE PREDICTED IMPACT OF THE BLACK LUNG BENEFITS PROGRAM ON THE COAL INDUSTRY

Morris Goldstein and Robert S. Smith
U.S. Department of Labor/ASPER
Washington, D.C.

December 1973

Descriptors: MINING; OCCUPATIONAL SAFETY AND HEALTH; GOVERNMENT PROGRAM IMPACT; BLACK LUNG BENEFITS ACT (1972)

This study developed and tested a model for assessing the probable impact of coal mine operators' assumption of liability for payments under the Black Lung Benefits Program on prices, output, and employment in the underground and strip-mining sectors of the bituminous coal industry, holding

all other relevant variables constant. No attempt was made to forecast the level of prices, output, or employment in 1974 or beyond. Analysis of various production relationships led to the conclusion that the assumption of Cobb-Douglas production functions with constant returns to scale in each sector was appropriate.

The model was used to assess the impact of both a Black Lung-related insurance premium and an output tax upon the price-output-employment levels. The calculations suggested that the insurance premium rates being adopted for the program were inconsistent with preliminary estimates of the revenues that need to be generated in each sector. Had the program been in effect in 1971, strip output would have increased despite a fall, *ceteris paribus*, in the overall demand for coal, because strip insurance premiums are lower than underground premiums and strip-mining is also less labor-intensive. The Black Lung Benefits Program, scheduled to go into effect in 1974, seemed likely to cause modest changes in the overall price and consumption of coal, relative to anticipated levels in the absence of the program. It may, however, cause a significant shift, *ceteris paribus*, from underground to strip mining.

NTIS PB269474/AS; PRICE CODE: A05; 82 PAGES

3-013 ECONOMIC AND EMPIRICAL ASPECTS OF INDUSTRIAL SAFETY

Walter Y. Oi
University of Rochester
Rochester, N.Y.

Contract L-73-101

February 1974

Descriptors: AGE DIFFERENCES; SEX DIFFERENCES; WORK INJURIES; OCCUPATIONAL SAFETY AND HEALTH; WORKERS' COMPENSATION; TURNOVER; EMPLOYER PRACTICES AND POLICIES; OCCUPATIONAL STRUCTURE

This study developed a joint production function wherein work-related injuries were viewed as the undesirable by-products of economic activity, thus permitting development of a concept of equilibrium injury rates that may differ from a socially optimal injury rate. The model was extended to allow for variations in the composition of a firm's labor force and the impact of environmental factors on a firm's safety record. Published injury rates for manufacturing industries and related variables were analyzed to discern empirical regularities.

Injury rates showed significant and relatively stable differentials by age and sex, with men under age 25 having the highest rates. Census data on disabilities that prohibit or circumscribe employment, however, showed about the same frequency for both sexes. Hence, the researcher observed, if men expose themselves to higher injury risks at work than do women, then men must face lower injury risks at home. Research leading to reconciliation of the two series was recommended.

Because the equilibrium injury rate varied widely across industries and occupations, the researcher advocated the development of separate injury data on "all employees" and "production workers," to permit evaluating the impact of safety standards, most of which applied to production workers.

He also recommended additional data and further research on the tentatively established inverse relation between an industry's labor turnover rate and its work injury rate. He

conjectured that the institution of personnel policies that would reduce turnover might yield a larger reduction in injuries than would tighter safety measures.

He matched data on injury rates by establishment size with data on employment to explore what inspection strategy would offer the greatest reduction in both the injury rate and the total number of injuries.

To evaluate existing data on the severity of work injuries, he called for assembling data on the costs of workers' compensation as a percentage of payrolls.

Finally, he recommended that special industry studies of work injuries be redesigned to identify the underlying causes of accidents, instead of merely describing such facts as kind of injury and type of accident.

NTIS PB254936/AS; PRICE CODE: A09; 191 PAGES

3-014 ECONOMIC INCENTIVES AND OCCUPATIONAL SAFETY

Robert S. Smith
U.S. Department of Labor/ASPER
Washington, D.C.

April 1974

Descriptors: OCCUPATIONAL SAFETY AND HEALTH; INDUSTRY PRACTICES; GOVERNMENT POLICIES; INCENTIVES; FEASIBILITY STUDY

This paper analyzes the feasibility of replacing the current "standards" approach to occupational safety with a "tax" approach whereby employers would pay a financial penalty for each injury occurring in their firms. In particular, the study seeks to determine: (1) Whether injury rates across industries are inversely correlated with injury costs (other things being equal) and (2) what sizes of taxes would be required to achieve given reductions in the injury rate.

The general conclusions which appear supportable are that the injury rate is sensitive to the costs of injury, but that the "taxes" required to reduce these rates by even moderate amounts are most likely large. To base an occupational safety policy on only the findings presented in this study would be premature. The data used related to the early and middle 1960's and replication of the study is highly advisable. Further, a "tax" approach would probably be best if fines related to injury severity—and estimates of the required differentials among severity levels were outside the scope of this study.

NTIS PB282323/AS; PRICE CODE: A03; 38 PAGES

3-015 BENEFITS AND COSTS OF THE FEDERAL ASBESTOS STANDARD

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University of Delaware
Newark, Del.

Purchase order B-9-M-5-0540

February 1975

Descriptors: COST-BENEFIT ANALYSIS; OCCUPATIONAL SAFETY AND HEALTH; WORKERS' COMPENSATION; ASBESTOS INDUSTRY

This study developed a taxonomy of the benefits and cost of governmental intervention to improve occupational

safety and health and discussed the operational form for a number of measures based specifically on the Federal asbestos standard.

Under certain assumptions regarding, for instance, the annual number of asbestos-related deaths, the quantified benefits of the standard exceeded the quantified costs; however, under other equally plausible assumptions, the measured costs exceeded the measured benefits. On balance, though, the benefit-cost analysis seemed to favor intervention, especially if low discount rates were considered appropriate for evaluating public programs. Under those assumptions that generate costs in excess of benefits, the net cost per life saved might be less than the unmeasured benefits per life saved. The asbestos standard appeared to represent a move toward efficiency; however, this inference was sensitive to assumptions made.

NTIS PB256238/AS; PRICE CODE: A04; 57 PAGES

3-016 LABOR PRODUCTIVITY AND THE COAL MINE HEALTH AND SAFETY ACT OF 1969

Jon P. Nelson and George R. Neumann
State College, Pa.

Purchase order B-9-M-5-1111

April 1975

Descriptors: MINING; OCCUPATIONAL SAFETY AND HEALTH; WORK INJURIES; DATA SOURCES AND USE

Following a brief review of the history of coal mine safety legislation, two previous attempts by economists to examine injury experience in bituminous coal mining were discussed. A positive, neoclassical model of the production of safety by the firm was presented, and empirical estimates of the model were made using aggregate time series data for 1950 to 1970, controlling for the level of coal production, capital inputs, wage rates, etc.

It was concluded that, at least at this level of aggregation, the ability to draw inferences from time series data about the effect of variations in risk on compensatory wage differentials was very limited. An increase in the number of new and inexperienced miners, the opening of new mines (in some instances by inexperienced operators), changes in operating practices and various other work disturbances were considered to have adversely affected the injury experience in 1971-72. Data gathered on a more frequent basis are needed to account for dynamic influences such as short-run employment adjustment lags.

NTIS PB256670/AS; PRICE CODE: A04; 67 PAGES

3-017 ON EVALUATING THE EFFECTIVENESS OF THE OSHA INSPECTION PROGRAM

Walter Y. Oi
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Arlington, Va.

Contract L-72-86

May 1975

Descriptors: ENFORCEMENT ACTIVITIES; OCCUPATIONAL SAFETY AND HEALTH; METHODOLOGY; EFFECTIVENESS OF PROGRAMS

This study developed a methodology for evaluating the Occupational Safety and Health Administration (OSHA) compliance effort and examined relevant data—both published and unpublished. Topics considered included: The goal of "qualified absolute protection", the standards path to occupational safety and health, the need of and general theory for enforcement, the determinants of an optimal level of OSHA inspection activities, the enforcement costs of OSHA safety inspections and their allocation across sectors, establishment size categories and industry risk levels, the record of compliance with the inspections, and the efficacy of the standards.

It was inferred that the impact of a safety inspection program is mainly transitory, that the number of mandated OSHA standards was inordinately large, and that violations of them had almost no effect on the overall frequency and severity of work injuries. The report recommended that a distinction be made between administrative and nonadministrative code rule violations.

NTIS PB254184/AS; PRICE CODE: A05; 94 PAGES

3-018 INSURANCE THEORETIC ASPECTS OF WORKERS' COMPENSATION

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Cambridge, Mass.

Purchase order B-9-M-5-2758

December 1975

Descriptors: WORKERS' COMPENSATION; WORK INJURIES; OCCUPATIONAL SAFETY AND HEALTH; ECONOMIC INDICATORS; PRODUCTIVITY

This study drew on the theoretical literature concerning the interaction between insurance and liability for both accidents between strangers and defective consumer products, to consider the effects of workers' compensation on the efficiency of production. It outlined the conditions necessary for production to be fully efficient in the presence of the possibility of job-related accidents, setting a framework for the discussion of the various types and degrees of failure of the economy to achieve full efficiency. Ideal insurance against accidents was discussed, along with the shortcomings of actual insurance. After a brief discussion of possible market equilibrium in the absence of workers' compensation, the paper focused on three issues of efficiency: Failure of workers to correctly perceive job risks, difficulties for firms in distinguishing careful workers, and incentives for safety on the job.

Compensation, by and large, appeared more likely to improve efficiency in the economy than to worsen it under plausible general assumptions. Experience rating was also likely to improve efficiency unless much too expensive to administer. To draw any more concrete conclusions, one would need to have empirical evaluation of the magnitudes of the responsiveness of the various efficiency elements to the shifting of the impact of the compensated part of acci-

dent costs. The theories described identify the important issues that must be examined to reach a definite conclusion.

NTIS PB256319/AS; PRICE CODE: A03; 44 PAGES

3-019 OSHA ACTIVITY IN THE SMALL BUSINESS COMMUNITY

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Purchase order B-9-M-6-1358

April 1976

Descriptors: ENFORCEMENT ACTIVITIES; SMALL BUSINESS; OCCUPATIONAL SAFETY AND HEALTH

This analysis used surveys of the membership of the National Federation of Independent Business (NFIB) during 1974 and 1975 in an attempt to determine the incidence of Occupational Safety and Health Administration (OSHA) inspections and citations by industry firm size. Fines and costs for OSHA violations by industry and firm size were given, as was the number of requests for Government help and information on OSHA.

The major findings were that firms in construction and manufacturing were inspected at least twice as often as other firms, as much as 12 times as often as firms providing professional and financial services. The frequency of inspection rose with firm size, and the proportion of firms reporting inspections had risen from 7 percent in February 1974 to 12 percent in late 1975. Citations were most frequent in manufacturing, with these firms also being most frequently inspected. Overall, over half the firms inspected were cited for violations.

NTIS PB256305/AS; PRICE CODE: A03; 49 PAGES

3-020 AN EVALUATION OF THE OSHA PROGRAM'S EFFECT ON WORKPLACE INJURY RATES: EVIDENCE FROM CALIFORNIA THROUGH 1974

John Mendeloff
University of California
Berkeley, Calif.

Purchase order B-9-M-5-2399

June 1976

Descriptors: EFFECTIVENESS OF PROGRAMS; OCCUPATIONAL SAFETY AND HEALTH; WORK INJURIES; MANUFACTURING

Because many studies have concluded that only a minority of all occupational injuries could be prevented by perfect compliance with safety standards, evaluations of Occupational Safety and Health Administration (OSHA) need to focus on the accident types that OSHA can prevent. Although OSHA's light "first instance" penalties and small inspectorate limit its impact, several other mechanisms exist through which compliance occurs: Equipment suppliers incorporate safety standards as "standard equipment"; unions raise the probability that noncompliance will be detected to unity; and management organizational routines and desires to be law-abiding lead to compliance in some cases. Tests of OSHA's effects require predicting what injury rates would have been in the absence of OSHA. This study used models

that include economic and demographic variables to predict post-OSHA manufacturing rates for the United States and for California.

The predictions were very close to the actual rates, suggesting no impact. However, the rate for the accident type most related to standards (caught-in-machine injuries) was significantly lower than predicted after 1972, while the rate for the type least related to standards (sprains and overexertions) was higher than predicted. These findings suggested that, for California manufacturing (and, plausibly, for U.S. manufacturing), OSHA enforcement has reduced the overall injury rate by several percent. Other weaker tests were generally inconclusive, especially those examining the distinct effect of inspections.

For policymakers, the chief implications appeared to be that: (1) A major constraint on OSHA's impact is its almost exclusive focus on the small proportion of injuries caused by detectable violations and (2) nothing can be determined currently about the effects, if any, on the injury rate of changing the frequency of inspections or the size of fines for violations.

NTIS PB270672/AS; PRICE CODE: A11; 233 PAGES

3-021 OCCUPATIONAL DISEASE STUDY FOR THE DEPARTMENT OF LABOR: FINAL EVALUATIVE REPORT

*Health Service Foundation
Chicago, Ill.*

Contract J-9-F-5-0141

June 1976

Descriptors: DATA SOURCES AND USE; OCCUPATIONAL SAFETY AND HEALTH; HEALTH INSURANCE; INFORMATION SYSTEMS

This study rested on the premise that the amount and distribution of per capita health expenditures among employees in different industries could be used to identify industries that pose high health risks to workers. Data for 1971-75 were obtained, primarily through Blue Cross and Blue Shield, for workers in 12,000 Indiana firms.

It was concluded that further work along these lines would require information on dependents, more specific diagnoses, more appropriate industrial classifications, and the workers' employment and occupational histories, as well as an evaluation of the experimental methodology and questions of protecting the confidentiality of the data.

NTIS PB256275/AS; PRICE CODE: A04; 33 PAGES

3-022 REGULATING OCCUPATIONAL HAZARDS THROUGH COLLECTIVE BARGAINING

*Lawrence S. Bacow
Brookline, Mass.*

Purchase order B-9-F-7-1914

September 1977

Descriptors: COLLECTIVE BARGAINING; OCCUPATIONAL SAFETY AND HEALTH; INDUSTRY PRACTICES; GOVERNMENT PROGRAM IMPACT; UNION PRACTICES

This paper suggests ways in which Federal regulations of occupational safety and health might be improved through

greater utilization of the tools of collective bargaining. Specifically, it addresses three questions: (1) Is it likely that greater involvement of organized labor in regulating job hazards would improve the performance of the Federal regulatory effort? (2) What form might this involvement take? (3) How can the Federal Government encourage greater labor union participation in health and safety regulations?

Three case studies of bargaining over health and safety issues are used to describe the capabilities and limitations of collective bargaining as a means of regulating occupational hazards. The study concludes that a serious attempt to control the ravages of occupational hazards must necessarily involve in an active way the parties most directly affected by Government regulation—labor and management. While collective bargaining is not a substitute for Government regulation, it has the potential to be a valuable supplement. If this potential is to be realized, however, Government agencies concerned with the workplace must do a better job of understanding the factors that influence labor's and management's willingness and ability to bargain over job hazards. These agencies must be willing to experiment with policies that will create an environment conducive to health and safety bargaining. If health and safety bargaining is to be more than a prospect, however, the Occupational Safety and Health Administration, like the unions it seeks to motivate, must give the promotion of health and safety bargaining a higher priority on its own internal agenda.

NTIS PB279643/AS; PRICE CODE: A11; 233 PAGES

3-023 PROBLEMS OF LABOR MARKET ADJUSTMENTS TO INDUSTRIAL HEALTH HAZARDS

*Graciela Chichilnisky
Columbia University
New York, N.Y.*

Purchase order B-9-D-6-3788

March 1978

Descriptors: LABOR ADJUSTMENT COSTS; OCCUPATIONAL SAFETY AND HEALTH; LABOR MARKET; DATA SOURCES AND USE; COST-BENEFIT ANALYSIS; EXPERIMENTAL DESIGN; INFORMATION SYSTEMS

This study analyzed the problems of labor market adjustments to occupational safety and health (OSH) hazards. It provided several models for the eventual measurement and empirical analysis of factors affecting the level of OSH hazards in the workplace. Conditions under which market forces bring about a sufficient level of health and safety information were viewed, as well as the conditions necessary for a Government policy to increase the level of information on occupationally related safety and health hazards.

The results suggested that there is no standard "correct policy" for OSH but that a variety of policies are required. It was concluded that a classification of OSH cases and corresponding adequate policies are an important component of a cost-efficient policy for the attainment of socially optimal levels of OSH. This classification should include such factors as: Size of the firm; mobility of workers; degree of unionization; level of unemployment; effect of illness or death on a worker's family; "spillover effects" on the population through income security and medical pro-

grams; degree of uncertainty or lack of information; and social risk aversion.

NTIS PB279796/AS; PRICE CODE: A07; 131 PAGES

3-024 ESTIMATES OF OCCUPATIONAL INJURY RISK AND COMPENSATING WAGE DIFFERENTIALS

Alan E. Dillingham
Cornell University
Ithaca, N.Y.

Contract J-9-F-6-0087

August 1978

Descriptors: OCCUPATIONAL SAFETY AND HEALTH; WAGE DIFFERENTIALS; WOMEN; MEN; YOUTH; BLUE-COLLAR WORKERS; COST-BENEFIT ANALYSIS; WORKERS' COMPENSATION

This study constructed a comprehensive and detailed set of occupational injury risk measures from census and workers' compensation data. The risk measures are specific to occupation, industry, age, and sex. This data set was employed to delineate the occupational distribution of injury risk, and to examine the influence of economic factors on the risk distribution.

Injury rates for women were significantly less than those for men primarily because of differences in employment distribution. The injury rate for young workers was high relative to that of older workers. Blue-collar work, and especially unskilled labor, in construction and manufacturing was the most hazardous kind of employment. Multiple regression analysis revealed that occupational injury risk was inversely related to occupation mean earnings, and that the technology of safety production appears to be an important determinant of the risk estimated using human capital earnings functions augmented by risk variables. Significantly positive wage premiums were obtained only for fatal injury risk, and only for blue-collar workers. The relative premium implied by the average risk and earnings levels was about 1 percent. The injury rates and risk premium estimates were employed to make an illustrative calculation of the social benefits to be derived from increased occupational safety.

NTIS PB290597/AS; PRICE CODE: A09; 183 PAGES

3-025 THE USE OF PRODUCT LIABILITY LAW SUITS TO COMPENSATE VICTIMS FOR OCCUPATIONAL DISEASE

Allen LeBel
Annandale, Va.

Purchase order B-9-M-8-4951

February 1979

Descriptors: PRODUCT LIABILITY; LAWS, LEGISLATION; OCCUPATIONAL SAFETY AND HEALTH

The purpose of this study was to examine the role of product liability (PL) litigation in compensating victims of occupational disease (OD). A review of the literature, court data, and current legal activity provided little information on PL-OD cases, but extensive information was provided on product liability cases overall.

A methodology developed to identify and describe PL-OD cases was: (1) Extensively implemented to identify liti-

gated and decided cases; (2) partially implemented to study pending cases in Federal courts; and (3) not implemented to study cases terminated without trial. Although searches of court records indicate that less than 20 PL-OD cases have been litigated and decided in Federal and State courts since 1975, rumors among lawyers suggest that from 1,500 to 2,000 asbestos cases alone are pending. An analysis of variation in product liability law among States indicated that differences in the written expression of this law among States are not sufficient bases to categorize States into liberal or conservative groups with respect to treatment of product liability plaintiffs.

NTIS PB299096/AS; PRICE CODE: A03; 41 PAGES

3-026 SURVEYING AND ANALYZING THE FIELD OF EMPLOYEE RIGHTS RELATED TO OCCUPATIONAL DISEASE

Curtis Seltzer
Cabin John, Md.

Purchase order B-9-M-9-2220

March 1979

Descriptors: OCCUPATIONAL SAFETY AND HEALTH; UNIONS; WORKING CONDITIONS; LAWS, LEGISLATION; SWEDEN; GREAT BRITAIN

The author surveyed and analyzed the development of employee rights related to occupational health and safety under law and union contract. He traced the historical development of employee rights in, and provided a quantification for, the year 1976 using data from the Bureau of Labor Statistics and contractors. Rights provided under the Occupational Safety and Health Act (OSHA) and the Mining Safety and Health Act (MSHA) were compared. Two employee rights under those acts—the right to refuse hazardous work and the right to monitor harmful substances—were examined in detail.

He also explored the development of employee rights in the United Kingdom and Sweden.

Information gained through interviews with union decisionmakers about emerging trends in employee rights is included in the paper.

NTIS PB298747/AS; PRICE CODE: A15; 342 PAGES

3-027 COTTON DUST AND LUNG DISEASE: PRESUMPTIVE CRITERIA FOR DISABILITY COMPENSATION

Arend Bouhuys
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New Haven, Conn.

Purchase order B-9-M-8-4694

April 1979

Descriptors: OCCUPATIONAL SAFETY AND HEALTH; LUNG DISEASE; WORKERS' COMPENSATION; TEXTILE INDUSTRY

This report presents a set of presumptive criteria for the assessment of lung damage in cotton textile workers. The criteria are different for total, irreversible disabling disease, for partial disability which may eventually lead to total disability, and for partial temporary disability which may be

reversed by cessation of dust exposure and/or medical treatment. In each case the criteria are based on accurate, quality-controlled measures of the forced expiratory volume in 1 second (FEV_{1.0}), a simple lung function test. Prediction equations based on test results in 1,136 healthy black and white adults were used to render the disability judgment independent of sex, race, age, body weight, and body height.

The main presumptive criteria are: (1) A rebuttable history of exposure to cotton dust in defined jobs in cotton textile mills and (2) total disability—FEV *1.0* less than 50 percent of the predicted value; partial disability—FEV *1.0* less than the predicted value minus 1.96 times Standard Error of Estimate; and temporary disability—decrement of FEV *1.0* over the work shift more than 0.20 liter.

NTIS PB299138/AS; PRICE CODE: A04; 69 PAGES

3-028 MEDICAL STANDARDS FOR SOCIAL SECURITY DISABILITY INSURANCE

Arend Bouhuys
Yale University Lung Research Center
New Haven, Conn.

Purchase order B-9-M-8-4694

April 1979

Descriptors: LUNG DISEASE; DISABILITY INSURANCE; SOCIAL SECURITY INSURANCE

This paper summarizes the present state of knowledge of compensation laws and regulations for byssinosis and other chronic lung diseases and indicates where this limited knowledge can be expanded by further research. The evaluation of disability caused by respiratory diseases is, at present, not based on adequate scientific evidence. Current emphasis is on the detection of "early stages" of chronic lung diseases, with the hope that this will promote the prevention of disabling diseases later on. It is unlikely that disabling lung disease will be eradicated in the foreseeable future.

Under the Social Security Administration's (SSA's) present scheme for the assessment of disability patients with a degree of lung function loss, the usual criteria are a shortness of breath at rest or during minimal exertion (such as walking a short distance on level ground). However, disability involving physical exertion of any greater degree may exist with degrees of lung function loss, less severe than the limits set by the SSA. Furthermore, SSA limits depend on height only, while it is known that sex, race, age, and body weight also affect lung function. Thus, the SSA disability criteria are not equitable for persons of different ages, races, sex, or body weights. This paper includes proposals to supplement the present criteria with standards which are less restrictive and more equitable.

NTIS PB299137/AS; PRICE CODE: A03; 44 PAGES

3-029 OCCUPATIONAL DISEASE AND COMPENSATION: AN ANALYSIS OF THE 1972 SSA SURVEY OF DISABLED ADULTS

Glen M. Shor
Washington, D.C.

Purchase order B-9-M-8-3652

May 1979

Descriptors: OCCUPATIONAL SAFETY AND HEALTH; WORKERS' COMPENSATION; DISABILITY INSURANCE

The objective of this study was to analyze the 1972 Social Security Survey of Disabled Adults in order to: (1) Determine the type, extent, and work-relatedness of the disability; (2) estimate the population of noninstitutionalized adults with occupational diseases; and (3) document their experiences in receiving disability compensation.

Survey estimates were based on a sample of 18,000 interviewed persons selected from the 1970 5 percent census sample. Of the 18,000 persons 11,700 indicated that they were disabled prior to October 1969. A mail screening in 1971 resulted in two other sample groups—5,100 disabled persons, and 1,200 recent onset cases. The sample was designed to represent the noninstitutionalized U.S. civilian population aged 20-64 in 1972.

The study found that of 15 million people who were disabled in 1972, approximately 3 million felt their job was the cause. About 2 million reported their work limitations were due to an occupational disease. Because of the limited understanding of what diseases are occupational in nature, it is likely that the actual number of occupational disease cases is much higher. Three-quarters of those with severe disabilities (unable to work at all) received some sort of income support; however, nearly 20,000 received no type of income support at all. Income support for severe occupational disease cases came primarily from Social Security (43%) and Public Assistance (26%). Only 2.4 percent of the severely disabled with occupational diseases received workers' compensation benefits during 1971.

NTIS PB299144/AS; PRICE CODE: A04; 59 PAGES

3-030 THE APPLICATION OF CASE-CONTROL SURVEILLANCE TO THE STUDY OF OCCUPATIONAL EXPOSURE IN RELATION TO DISEASE

Boston University Medical Center
Boston, Mass.

Purchase order B-9-M-8-4693

June 1979

Descriptors: OCCUPATIONAL SAFETY AND HEALTH; METHODOLOGY

The purpose of this report is to investigate the feasibility of adapting the "case-control surveillance" method to the study of occupations in relation to disease. The diseases of special interest to this study are nonmalignant respiratory conditions other than coal miners' pneumoconiosis. Based on work done and on the experiences of the Drug Epidemiology Unit (DEU) with case control surveillance as it is applied to the study of drugs and disease, it is concluded that such a system could be adapted successfully to the study of occupational exposures. Methodological issues are considered, preliminary data collection forms developed, suitable study sites identified, and proven methods of data analysis are available for use. The pilot study would be located in eastern Massachusetts; the industry of special interest would be the plastics producing industry. A case control analysis of known association between toluene di-

isocyanate and asthma would be performed in order to check the validity of this approach.

NTIS PB299268/AS; PRICE CODE: A05; 85 PAGES

**3-031 PRODUCT LIABILITY LITIGATION FOR
COMPENSATING VICTIMS OF OCCUPATIONAL
DISEASE**

*Allen LeBel
Annandale, Va.*

Purchase order B-9-M-9-2951

June 1979

Descriptors: PRODUCT LIABILITY; OCCUPATIONAL SAFETY
AND HEALTH; LAWS, LEGISLATION

This study examined the role of product liability litigation in compensating victims of occupational disease (OD) by implementing a methodology developed by the same author in a previous study. A survey was conducted of a sample of court cases in three Federal District Courts and in one United States Circuit Court of Appeals. The results of this survey were used together with: (1) A computerized search of litigated and decided cases of product liability-occupational disease; (2) published information concerning a survey of insurance claims of product liability that were closed in 1977; and (3) interviews with product liability lawyers to determine the number and characteristics of past and future cases of product liability-occupational disease. The number of these product liability-occupational disease cases filed in Federal courts each year is estimated to be 33 in 1978, and 40 in 1980. The estimate for 1980 is based on the assumption that product liability-occupational disease cases will increase 10 percent per year between 1978 and 1980. These estimates represent perhaps less than half of legal activity related to product liability-occupational disease because: (1) 1,500-2,000 cases are rumored to exist; (2) State courts, although extremely difficult to sample and study, handle about 97.8 percent of all court cases in the U.S.; and (3) perhaps 95 percent of product liability-occupational disease cases are settled out of court. Lawyers interviewed indicated that few of these cases are being settled in court so the backlog is growing; they also stated that the flow of new filings is steady and increasing moderately over time.

NTIS PB299247/AS; PRICE CODE: A03; 36 PAGES

**3-032 ANALYSIS OF CURRENT LAWS REFLECTING
WORKER BENEFITS FOR OCCUPATIONAL
DISEASE**

*Lloyd W. Larson
Washington, D.C.*

Purchase order B-9-M-8-4385

August 1979

Descriptors: WORKERS' COMPENSATION; LAWS, LEGISLATION;
OCCUPATIONAL SAFETY AND HEALTH

The objectives of this study were to analyze the statutes and interpretations of the occupational disease provisions in State and Federal workers' compensation laws to see if any of these provisions contain restrictions or limitations that may thwart the goal of truly full coverage of work-related diseases under the present compensation system.

The methodology included a complete review and analysis of the provisions of the State and Federal statutes pertaining to occupational diseases and the administrative and judicial opinions and orders affecting their application to specific cases. Field visits were made to three States (New York, North Carolina, and South Carolina) having a substantial number of pending cases either of asbestosis or byssinosis. Extensive correspondence and telephone surveys of provisions and procedures were conducted in numerous other States. An extensive review of the historical background and development of occupational disease legislation was conducted in order to ascertain the rationale for the differential treatment of compensation for accidental injuries and for occupational diseases.

The results of the analysis confirm that there are indeed limitations in the coverage and time limit provisions of many of the laws which preclude full coverage, and particularly difficulties arising from the continued practice of relying largely on the adversary method rather than an agency inquiry approach to resolving problems of work-connection. There are special problems involving cases of slowly developing or long latency diseases, as well as cases of multiple causality.

NTIS PB299364/AS; PRICE CODE: A06; 118 PAGES

3C. EMPLOYMENT AND TRAINING PROGRAMS

**3-033 STUDY OF THE FEASIBILITY OF DEVELOPING
A PILOT PROJECT FOR THE EMPLOYMENT OF
EX-OFFENDERS IN GOVERNMENT**

*The Center for Human Systems, Inc.
Washington, D.C.*

Contract L-71-207

September 1971

Descriptors: PILOT STUDY; EX-OFFENDERS; PUBLIC
EMPLOYMENT PROGRAMS; STATE AND LOCAL
GOVERNMENTS; SUPPORTIVE SERVICES

This report recommends the implementation of a pilot employment project to break down barriers to hiring ex-offenders for public service jobs at the Federal, State, and local level; to regularize policies and procedures for recruiting, screening, and placing ex-offenders; and to establish support services delivery systems designed for their special needs. The program would build on existing personnel systems and special employment programs. A contractor would negotiate hiring commitments and design employment programs geared to offenders' needs and agency capabilities; would counsel ex-offender participants; would design and conduct special workshops to develop skills, criteria, and procedures for the agency personnel specialists and corrections staff; and would supply other technical assistance. The Interagency Council on Corrections would monitor and advise the pilot project. Previous work on model projects for the employment of ex-offenders in government, including Public Service Careers Program Model and a separate model for ex-narcotic addicts, is discussed. The variables involved in developing a pilot program are discussed and the elements of the tentative project are explained.

NTIS PB253064/AS; PRICE CODE: A07; 127 PAGES

3-034 WAGE SUBSIDY RESEARCH: EXISTING MODELS AND PROGRAMS

C. Duncan MacRae, R. W. Crandall, and Ralph E. Smith
The Urban Institute
Washington, D.C.

Contract L-72-129

July 1972

Descriptors: WORK INCENTIVE (WIN) PROGRAM; TAXES; ECONOMIC ANALYSIS AND ECONOMETRICS; GOVERNMENT PROGRAM IMPACT

This study examined the effects of the Work Incentive (WIN) Program tax credit on the market for WIN participants and on the markets for other labor. Existing economic theory was applied to wage, training, and income subsidies for comparison, and simulation models of a universal wage-rate subsidy and an employment training tax credit were examined. The experience of existing wage-related subsidy programs, Job Opportunities in the Business Sector (JOBS), and the experimental Training Incentives Payments Program (TIPP) was reviewed. The effect of the WIN tax credit was inferred from an econometric model of the demand for low-skill labor.

The analysis showed that the administrator of the WIN tax credit program, in general, faces the dilemma of increasing employment of subsidized WIN workers while displacing unsubsidized low-skill workers or increasing the earnings of those WIN participants who would have been employed without the tax credit by raising job standards. Other inferences were limited by the static nature of the models available.

NTIS PB253179/AS; PRICE CODE: A04; 60 PAGES

3-035 EMPLOYMENT AND WAGE EFFECTS OF THE WIN TAX CREDIT

R. W. Crandall, C. Duncan MacRae, and L. Y. L. Yap
The Urban Institute
Washington, D.C.

Contract L-73-4

November 1972

Descriptors: AID TO FAMILIES WITH DEPENDENT CHILDREN; WORK INCENTIVE (WIN) PROGRAM; TAXES; UNSKILLED WORKERS; LAYOFFS; EMPLOYMENT

In this study, the Work Incentive (WIN) tax credit was described and a procedure for calculating the effective subsidy rate was provided, based on a hypothesis of the operation of the tax-credit in low-skill labor markets. The study reviewed an econometric analysis of the market for low-skill labor and provided estimates of the effect of the WIN tax credit for 1973.

It was concluded that while neither the WIN tax credit nor the WIN program alone could generate a significant increase in employment among recipients of Aid to Families with Dependent Children without displacing other low-skill workers, a combination of these programs could.

NTIS PB253586/AS; PRICE CODE: A03; 32 PAGES

3-036 THE NEIGHBORHOOD YOUTH CORPS: AN IMPACT EVALUATION

Robert S. Smith and Hugh M. Pitcher
U.S. Department of Labor/ASPER
Washington, D.C.

September 1973

Descriptors: TEENAGERS; EMPLOYMENT OPPORTUNITIES; POVERTY; CRIME; EARNINGS; IMPACT OF EMPLOYMENT AND TRAINING POLICIES; NEIGHBORHOOD YOUTH CORPS (NYC)

This study attempted to evaluate the success of the Neighborhood Youth Corps (NYC) in attaining four goals: (1) Redistributing income to the poor; (2) increasing employment opportunities for teenagers; (3) reducing teenage crime rates; and (4) increasing the lifetime earnings of participants through job experience and encouragement to stay in school.

It was found that the NYC program was essentially redistributive; income was transferred from middle- and upper-income groups to the poor. The summer program appeared to be slightly more redistributive than the in-school program, at least in the short-run. Evidence on the employment effects of NYC was not conclusive or credible, and requested data were lacking for evaluation of changes in teenage employment that may stem from NYC. The effects of NYC on teenage crime rates were essentially unknown and, with available data, unknowable. Evidence on the long-run impact of NYC on earnings was likewise unconvincing; estimates alternate between rates of return that are inordinately high and zero. Evidence with respect to educational attainment was likewise conflicting. It was, therefore, concluded that the long-run effects of NYC were unknown, because better data are needed.

NTIS PB268605/AS; PRICE CODE: A04; 71 PAGES

3-037 THE IMPACT OF LABOR MARKET CONDITIONS ON MDTA COMPLETION STATUS

Stanley A. Horowitz and George F. Brown, Jr.
Center for Naval Analyses
Arlington, Va.

Contract L-72-86

January 1974

Descriptors: EMPLOYMENT AND TRAINING PROGRAM MANAGEMENT; EFFECTIVENESS OF PROGRAMS; RETENTION OF TRAINEES; OCCUPATIONAL TRAINING

The model underlying the empirical work undertaken in this study sought to explain the fraction of the trainees of Manpower Development Training Act (MDTA) institutional training who end up in each of four groups (full-time completers, early completers, those who leave for jobs, and dropouts) as a function of the value of the enrollees' characteristics in the labor market and the nature of labor market opportunities available to them. Variables of the completion status, enrollee characteristics, labor market conditions, and program factors were incorporated in multiple regression analysis.

It was concluded that trainees viewed the program as an alternative labor market opportunity, so that labor market conditions had a strong impact on enrollment and completion rates. Other demographic variables had an impact on

the nature of enrollee termination status, while program composition factors had no notable impact.

NTIS PB253187/AS; PRICE CODE: A02; 15 PAGES

3-038 THE EVALUATION OF THE WIN II PROGRAM: METHODOLOGICAL ISSUES AND SOME INITIAL RESULTS

*George E. Johnson and Gary Reed
U.S. Department of Labor/ASPER
Washington, D.C.*

February 1974

Descriptors: WORK INCENTIVES (WIN) PROGRAM; ASSESSMENT AND EVALUATION; METHODOLOGY; EFFECTIVENESS OF PROGRAMS; ECONOMIC ANALYSIS AND ECONOMETRICS

This paper examines the major problems in conducting an impact evaluation of the Work Incentive (WIN) Program as modified by the Talmadge Amendments of 1971 (WIN II). The inability to develop a set of precise estimates of the benefits directly attributable to the program is stressed. This limitation of the study is due to the nonavailability of adequate evaluation data. Some tentative conclusions are drawn about the impact of the program and the possibilities of drawing more definitive conclusions.

The principal conclusions are as follows: (1) Estimates of both the increase in earnings due to participation during the first year and the rate at which this net impact depreciates over time are needed to assess the net impact of WIN II and of welfare savings. (2) Deterrent effects can be detected only through the use of aggregate data. (3) The WIN II program is likely to have different effects on the well-being of different socioeconomic groups. (4) A primary benefit of the WIN II program is on future generations. (5) Although inconclusive, evidence on the impact of WIN I would be relevant for assessing the impact of WIN II. (6) Using indirect evidence on completer job entry rates, wages for completer job entries, and previous information on welfare turnover rates, range estimates of increased earnings and welfare savings due to participation in WIN II can be calculated. (7) The estimates of the social rate of return to resources allocated to the WIN program range from zero to a ridiculously high number. (8) The range estimates of welfare savings attributable to WIN II vary as much as the range estimates of increases in net earnings. (9) A cursory examination of the behavior of aggregate AFDC costs over time might indicate that WIN II has a substantial impact on lowering welfare costs. (10) Analysis of inter-State data on welfare costs suggests that WIN placement reduces AFDC costs by about 30 percent of the monthly costs of a single AFDC family.

NTIS PB283673/AS; PRICE CODE: A05; 78 PAGES

3-039 SOME EVIDENCE ON THE EFFECT OF MANPOWER TRAINING PROGRAMS ON THE BLACK/WHITE WAGE DIFFERENTIAL

*Clifford Reid
U.S. Department of Labor/ASPER
Washington, D.C.*

May 1974

Descriptors: EMPLOYMENT AND TRAINING PROGRAMS; EFFECTIVENESS OF PROGRAMS; BLACK/WHITE; WOMEN; MEN; WAGE DIFFERENTIALS; EARNINGS; ECONOMIC ANALYSIS AND ECONOMETRICS

This study presented a simple method for estimating one aspect of the distributional effect of employment and training programs. In particular, the effect of training programs on the average wage of black workers relative to the average wage of white workers was examined. It appeared to depend on three factors: (1) The proportion of the labor forces that have undergone training; (2) the extent to which training increases the wages of black workers relative to white workers; and (3) the difference in the effects of the presence of training programs on the wages of black and white workers who have not undergone training. The sex and racial composition of trainees was also examined.

It was concluded that although the effect of training programs on the black/white wage differential was positive and had steadily increased since 1963, the estimates were very small. Black females were the recipients of most of the redistributional benefits of training programs. In 1972 the black/white ratio for men was 0.5 percent greater than it would have been in the absence of training programs, while for females the ratio was 1.4 percent greater than it would have been in the absence of such programs. It was further concluded that the institutional training program has had little impact on the redistribution of income from whites to blacks. For males the difference between having training programs and not having them ranged from .001 to .003, and for females the range was from .001 to .013.

NTIS PB283140/AS; PRICE CODE: A02; 16 PAGES

3-040 THE DETERMINANTS OF TRAINING PRODUCED IN THE PRIVATE SECTOR

*Paula E. Stephan
Georgia State University
Atlanta, Ga.*

Purchase order OAS 74-2621

June 1974

Descriptors: GOVERNMENT PROGRAM IMPACT; EMPLOYMENT AND TRAINING POLICY; RETURNS ON TRAINING; LABOR DEMAND

This study examined the behavioral determinants of the private sector's demand for training subsequent to formal education, to determine whether Government employment and training programs provide primary or secondary benefits. A human capital investment model was used to analyze the determinants of the quantity of human capital that would be acquired by the individual at a given time in the absence of a Government program. The dampening effect on training of discrimination, myopic behavior, imperfect access to the capital market, unemployment, and minimum wage legislation was discussed.

It was found that the Government could indirectly stimulate the training individuals produce by providing better information flows, by helping to eliminate the negative economic effects of discrimination, by relaxing the minimum wage legislation for young people, and by providing some access to the capital market for human capital needs. As for the Government's entering the training business, there was

some evidence that benefits produced by programs such as the Manpower Development and Training Act (MDTA) may be only temporary.

NTIS PB254444/AS; PRICE CODE: A03; 36 PAGES

3-041 REVISED ESTIMATES OF WIN JOB PLACEMENTS IN FY 1973 AND FY 1974

Spencer Brand and Gary Reed
U.S. Department of Labor/ASPER
Washington, D.C.

October 1974

Descriptors: WORK INCENTIVE (WIN) PROGRAM; ASSESSMENT AND EVALUATION; ECONOMIC ANALYSIS AND ECONOMETRICS; JOB PLACEMENT; SURVEYS

This study provided an estimate of the number of job entries actually resulting from Work Incentive (WIN) Program activity during fiscal years 1973-74. The nature of problems with WIN data on job entries, including the first reports of inaccuracy received from the field in the summer of 1973 and the survey taken by the national WIN office in response to these reports, were laid out. The results of various surveys that were subsequently undertaken, including a joint survey by the Assistant Secretary for Policy, Evaluation, and Research (ASPER) and the Manpower Administration (MA); an MA regional office survey; and a survey by Camil Associates (under contract to MA) were presented. These various survey data were analyzed, and national estimates of the proportion of job entries reported by WIN II (which cannot be directly related to program activities) were derived. These national estimates of unserved job entries were then used to derive the revised estimates of WIN II job entry achievement that were needed for short-term evaluation of the WIN II program.

The principal conclusions were as follows: (1) Various data sources indicate that the WIN II program recorded a substantial number of job entries in both fiscal years that were not the result of direct program activity. (2) Approximately 45 percent of the individuals claimed as WIN job entries in the seven States sampled by ASPER/MA in 1973 were either already employed at the time they registered for WIN or obtained employment without WIN's assistance. (3) This study estimated that job entry transactions directly attributable to WIN and completed job entries reported by WIN in both years were greatly inflated in official reports.

NTIS PB283992/AS; PRICE CODE: A04; 60 PAGES

3-042 REVISED ESTIMATES OF WIN JOB PLACEMENTS IN FY 1973 AND FY 1974, APPENDIX: SAMPLING PROCEDURES

Spencer Brand and Gary Reed
U.S. Department of Labor/ASPER
Washington, D.C.

October 1974

Descriptors: ASSESSMENT AND EVALUATION; WORK INCENTIVE (WIN) PROGRAM; ECONOMIC ANALYSIS AND ECONOMETRICS

This study reported on the ASPER/MA survey which examined the increase in the number of individuals enrolled in the Work Incentive (WIN) Program reported by States

to have been placed into job entry each month between December 1972 and June 1973. To estimate the extent to which WIN was counting employed registrants or self-placed individuals, seven States from Regions IV, V, VII, and IX were selected for review (Minnesota, Wisconsin, Michigan, California, Kansas, Missouri, and Kentucky). With the exception of Kansas, each of these States exhibited well over a 100 percent increase in the monthly number of job entries reported. In each State, the ASPER/MA survey attempted to estimate the degree to which individuals who obtained employment on their own without WIN assistance or any program services were counted as WIN job entries during fiscal years 1973-74. In order to ascertain both the time of employment and the means used to obtain that job, it was necessary to review individual case files. Each file was reviewed to determine: (1) Whether the individual was employed at the time of registration in WIN; (2) whether that job was the same job as that reported by WIN when counting the individual as a job entry; (3) whether, after registration for WIN, the person obtained a job on his own without WIN assistance or service; and (4) whether this individual was entered into job entry more than once during the fiscal year. In some States, statewide data on the WIN job entries were available and reviewed. In other States, samples were taken from one or more local WIN projects.

NTIS PB283557/AS; PRICE CODE: A02; 22 PAGES

3-043 THE IMPACT OF THE WIN 2 PROGRAM ON WELFARE COSTS AND RECIPIENT RATES

Ronald G. Ehrenberg; James G. Hewlett
University of Massachusetts
Amherst, Mass.

Purchase order 74-3280

December 1974

Descriptors: WORK INCENTIVE (WIN) PROGRAM; GOVERNMENT PROGRAM IMPACT; COST EFFECTIVENESS

This paper presents an econometric analysis of the impact of the Work Incentive (WIN) Program, as modified by the Talmadge Amendments of 1971 (WIN II), on Aid to Families with Dependent Children (AFDC) program costs and recipient rates. To estimate the macroeconomic impact of the program requires first a model of how these welfare cost variables would vary over time in the absence of the WIN II program. Many of the variables used in previous studies exhibit little short-run intertemporal variability over the 18-month span of the program within a State and are omitted from this analysis. The simple model presented by Johnson and Reed is expanded to consider the impact of WIN II placements on benefits and the average benefit level per family. The model is estimated separately for a number of periods since the WIN II program began, to observe how its impacts vary over time. A test is made of whether the mix of services provided program participants influences the size of program effects, and several other extensions of the analysis are discussed.

The program's impact on AFDC costs is found not to be substantial and varied over time. The evidence indicates that welfare costs have been reduced only for those WIN II placements who also receives some type of training. Consequently, although the data are subject to large measurement errors and the estimating equations are perhaps too simplistic, it is suggested that concentration on the program's

placement function, to the total exclusion of the training function, is probably a misallocation of resources.

NTIS PB236907/AS; PRICE CODE: A03; 28 PAGES

3-044 FURTHER EVIDENCE ON THE IMPACT OF THE WIN II PROGRAM

George E. Johnson and Gary Reed
U.S. Department of Labor/ASPER
Washington, D.C.

January 1975

Descriptors: WORK INCENTIVE (WIN) PROGRAM; EFFECTIVENESS OF PROGRAMS; ECONOMIC ANALYSIS AND ECONOMETRICS; METHODOLOGY; ASSESSMENT AND EVALUATION

This paper extends and refines the range estimates of the net impact of WIN II on participants earnings that were derived in an earlier study entitled "The Evaluation of the WIN II Program: Methodological Issues and Some Initial Results."

The methodology, adopted from the earlier study, is used to infer estimates of WIN II impact on participant earnings from indirect evidence, including regular program data, revised estimates of WIN II job placements, and data on the movement of AFDC recipients in and out of employment. This study utilizes more detailed data and extends the range estimates into fiscal year 1974, but the methodology used suffers from the same weaknesses present in the earlier study. The estimates presented are too imprecise to be considered as reliable estimates of net program impact and should be viewed as partially-informed guesses.

The rough estimates presented suggest that the rapid increase in WIN II placements during fiscal years 1973-74 represent, to a large extent, normal flows of welfare recipients into employment that would have occurred in the absence of the program. It is clearly demonstrated that the rapid increase in gross job placements resulting from the transition of WIN from a training (WIN I) to a direct placement (WIN II) program is consistent with a small net program impact on participants' employment and earnings.

NTIS PB283558/AS; PRICE CODE: A03; 46 PAGES

3-045 THE EFFICACY OF PUBLIC SERVICE EMPLOYMENT PROGRAMS

George E. Johnson and James D. Tomola
University of Michigan
Ann Arbor, Mich.

June 1975

Descriptors: PUBLIC EMPLOYMENT PROGRAMS; GOVERNMENT PROGRAM IMPACT; STATE AND LOCAL GOVERNMENTS

This study addressed five major evaluation questions associated with Public Service Employment (PSE).

It concluded that there is a severe potential problem of a fiscal substitution effect, i.e., State and local governments may use PSE subsidies to do what they would have done anyway and simply reduce property and other local taxes. Although most Public Employment Program (PEP) participants appeared to be from the middle of the skill distribution, data on all State and local government hiring during the period were not available. A major advantage of the

PSE approach was that it gets more people to work more quickly than other forms of fiscal policy, and the analysis of the short-run effects of PSE on aggregate employment confirmed this. Estimates of the inflationary impact of a large-scale PSE program (without fiscal substitution) were presented. Unless PSE programs concentrate on workers of higher than average skill level, they will be no more inflationary than other forms of fiscal policy per unit of unemployment reduction.

There was no reliable evidence on which to draw concerning two other important evaluation questions: The degree to which participation in PSE augments human capital and the degree to which PSE participants were used effectively.

NTIS PB257267/AS; PRICE CODE: A03; 30 PAGES

3-046 COST ANALYSIS OF OEO-ORI LONGITUDINAL STUDY OF FOUR MANPOWER PROGRAMS

Kamran Moayed-Dadkhah
Indiana University
Bloomington, Ind.

Purchase order B-9-M-3-1830

July 1975

Descriptors: COST-BENEFIT ANALYSIS; EMPLOYMENT AND TRAINING PROGRAM MANAGEMENT; JOB CORPS; JOB OPPORTUNITIES IN THE BUSINESS SECTOR (JOBS); OCCUPATIONAL TRAINING; NEIGHBORHOOD YOUTH CORPS (NYC)

The purpose of this study was to analyze the costs of four employment and training programs examined in the four manpower programs evaluation study (see contract J-9-M-6-0095): (1) Neighborhood Youth Corps/Out of School Component (NYC/OS), (2) Job Corps, (3) Job Opportunities in the Business Sector (JOBS), and (4) Manpower Development and Training Act-Institutional Program (MDTA). Within a conventional economic cost framework, data were collected and analyzed using regression analysis. Each of the four programs was examined separately and tests were made to see if variants within each program had different cost functions.

The most important finding was that data for three of the four programs displayed sufficient regularity to make the existence of a cost function plausible. But the JOBS program exhibited no discernible relationship between output and costs, making both understanding and oversight of the program difficult. The other three programs all had well-defined cost functions, although of quite different shape. For NYC/OS as a whole, marginal cost increased (although slowly) throughout the whole range of output levels. For the Job Corps and MDTA, marginal cost was found to be constant. None of the within-program tests on program variations revealed any significant differences. Although economics suggests there should be a point at which average cost is a minimum, this point could not be found for any of the programs. This may reflect insufficient variation within the programs to allow estimation of the rather complicated functions necessary to find such minimum cost points.

NTIS PB267769/AS; PRICE CODE: A04; 73 PAGES

3-047 EVALUATION OF THE WIN TAX CREDIT: A FEASIBILITY STUDY

Peter M. Greenston and C. Duncan MacRae
The Urban Institute
Washington, D.C.

Contract J-9-M-3-0044

August 1975

Descriptors: WORK INCENTIVE (WIN) PROGRAM; TAXES; LABOR SUPPLY; ECONOMIC ANALYSIS AND ECONOMETRICS; UNSKILLED WORKERS; GOVERNMENT PROGRAM IMPACT; DATA SOURCES AND USE

This study sought: (1) To determine the feasibility of implementing an expanded version of the State labor market model to simulate labor market effects of the WIN tax credit using a minimum of program data; (2) to determine the availability of program data for the estimation of a labor supply curve of WIN tax credit authorized hires; and (3) to analyze factors affecting the spread of knowledge about the program and the employer's decision to participate.

It pointed out that the State labor market model, partitioned into demographic skill groups, would have its primary impact on non-WIN workers in those same groups. But WIN program microdata were insufficient to estimate supply curves for WIN tax credit hires. The unreliability of wage rate data and the unavailability of work effort data precluded both estimating the supply responses of WIN tax credit hires and ascertaining WIN labor quality. Further data collection aimed at implementing the awareness-adoption framework would make it possible to predict the path of the program's growth and to evaluate various promotional strategies.

NTIS PB235473/AS; PRICE CODE: A04; 64 PAGES

3-048 ECONOMIC IMPACTS OF A PARTICULAR PUBLIC SERVICE EMPLOYMENT PROGRAM

Charles R. Link
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Newark, Del.

Purchase order B-9-D-6-3663

August 1976

Descriptors: PUBLIC EMPLOYMENT PROGRAMS; UNEMPLOYMENT BENEFIT EXHAUSTERS; LAWS, LEGISLATION; GOVERNMENT PROGRAM IMPACT

This study examined the probable economic effects of a proposed public service employment program for unemployment insurance (UI) exhaustees. Principal data came from a study of the reservation wages of UI exhaustees by sex, race, education, and age.

The results suggested that the main willing participants in a work relief program would be low-educated, black and white women with dependents. It was concluded that a public service employment program with a low wage would gain little support from exhaustees regardless of race, education, or dependent status. Fragmentary evidence suggested the availability of a substantial number of jobs in the private sector that would pay comparable wages. A public service employment program that pays such a small wage probably would have little impact on U.S. labor markets. However, once the wages become attractive, the possibility

of competition with the private sector, as well as substitution within the public sector itself, may become crucial issues.

NTIS PB257071/AS; PRICE CODE: A02; 24 PAGES

3-049 FISCAL SUBSTITUTION EFFECT OF ALTERNATIVE APPROACHES TO PUBLIC SERVICE EMPLOYMENT POLICY

George E. Johnson and James D. Tomola
University of Michigan
Ann Arbor, Mich.

Contract J-9-M-6-0009

September 1976

Descriptors: FISCAL SUBSTITUTION; PUBLIC EMPLOYMENT PROGRAMS; ECONOMIC ANALYSIS AND ECONOMETRICS; GOVERNMENT PROGRAM IMPACT; STATE AND LOCAL GOVERNMENTS

This paper examines the question of the size and importance of the fiscal substitution effect of Public Service Employment (PSE) programs. A conceptual model for the determination of the level of State and local employment is developed, and the implications of three variants of PSE programs (wage subsidies, federalized programs, and lump sum grants with maintenance of effort restrictions) are explored. The model is applied to aggregate time series data in an effort to estimate the relevant parameters (including the fiscal substitution effect of current PSE programs for an evaluation of the relative efficacy of the alternative approaches) for increasing State and local employment. The conceptual interdependence of the fiscal substitution effect and the impact of PSE on the composition of State and local employment by "quality" is also explored.

It is concluded that: (1) The importance of the size of the fiscal substitution effect in assessing the efficacy of PSE depends on the objectives of the program. (2) There are several ways in which PSE programs can be set up and four alternatives are examined from a theoretical point of view with respect to their employment creation potential. (3) Empirical analyses suggest that the fiscal substitution effect of PSE is very small for two or three quarters after introduction into a PSE slot but then rises to about 100 percent after five quarters, and that the traditional PSE format, as represented by PEP and CETA, is probably more effective than a wage subsidy in increasing State and local employment up to a year after triggering the program but thereafter the reverse is true. (4) An analysis of the effect of PSE on the skill composition of employment demand suggests that although PSE participants are much less employable in a long-run sense than the average State and local employee, they are not much different in this respect than the average member of the labor force. This conclusion, however, must be qualified by the possibility that fiscal substitution is skill specific (i.e., local governments hire their low-skilled non-PSE work forces at their pre-PSE levels).

NTIS PB281452/AS; PRICE CODE: A03; 39 PAGES

3-050 THE ECONOMIC BENEFITS FROM MANPOWER TRAINING PROGRAMS

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Princeton, N.J.

Contract J-9-M-6-0095

November 1976

Descriptors: EMPLOYMENT AND TRAINING PROGRAMS; RETURNS ON TRAINING; OCCUPATIONAL TRAINING; JOB CORPS; JOB OPPORTUNITIES IN THE BUSINESS SECTOR (JOBS); NEIGHBORHOOD YOUTH CORPS (NYC)

This study analyzed the effect of training on earnings of trainees in four programs: (1) Manpower Development and Training Act—Institutional Program (MDTA); (2) Job Opportunities in the Business Sector (JOBS); Job Corps (JC); and (4) Neighborhood Youth Corps (NYC/OS). The Office of Economic Opportunity/Department of Labor longitudinal data set which has been linked with annual earnings records from the Social Security Administration was used in the analysis. Comparisons of trainee and comparison group earnings during the period surrounding training were adjusted for different distributions of age, education, and marital status between groups.

Effects of training on earnings were found to vary considerably by program, sex, and race. The adult training programs, MDTA and JOBS, greatly increased the earnings of female trainees. The effect of training on the earnings of adult males was less clear. The two youth programs had even less precisely measured effects than the adult programs. An estimate of the impact of training on earnings over the life cycle was recommended for analysis of the long-term benefits from the programs. (For further research on these programs, see contract B-9-M-5-1830.)

NTIS PB265949/AS; PRICE CODE: A03; 98 PAGES

3-051 ESTIMATING THE EFFECT OF TRAINING PROGRAMS ON EARNINGS WITH LONGITUDINAL DATA

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Contract J-9-M-6-0095

November 1976

Descriptors: EMPLOYMENT AND TRAINING PROGRAMS; LONGITUDINAL DATA; BLACK/WHITE; WAGE DIFFERENTIALS; EFFECTIVENESS OF PROGRAMS; EARNINGS

This study dealt with the effect of training programs on earnings and the difficulty of implementing an adequate experimental design to obtain a group against which to compare trainees reliably. The researcher matched the program record of each trainee with the trainee's social security earnings history, concentrating on those entering classroom training under the Manpower Development and Training Act (MDTA) in the first 3 months of 1964.

Results showed that: (1) All of the trainee groups suffered unpredicted earnings declines in the year prior to training. The estimates of these declines ranged from \$150 to \$350, being in the lower range for black trainees and in the upper range for white trainees. (2) For all groups there appeared

to be significant foregone earnings as a result of the training process itself. These foregone earnings must be reckoned with in the calculation of the full social costs of training programs. (3) Despite considerable ambiguity of interpretation, training appeared to have increased the earnings of all trainee groups.

NTIS PB281193/AS; PRICE CODE: A03; 34 PAGES

3-052 COST ANALYSIS OF CETA

Gregory Dow
Ann Arbor, Mich.

Purchase order B-9-D-6-4551

June 1977

Descriptors: CETA PROGRAMS; ASSESSMENT AND EVALUATION; ECONOMIC ANALYSIS AND ECONOMETRICS; COST-BENEFIT ANALYSIS; WORKER TRAITS

This study estimated functions relating expenditures and enrollments for programs funded under the Comprehensive Employment and Training Act (CETA) using data from the fiscal 1976 quarterly reports of CETA prime sponsors to the Employment and Training Administration (Quarterly Progress Reports, Financial Status Reports, and Program Summaries, and the Quarterly Summaries of Participant Characteristics). A model of CETA enrollments and expenditures was developed and estimated using a production function framework. The inputs to the training process were taken to be expenditures on marketed inputs as well as the characteristics of trainees. Such functions were statistically estimated. The marginal costs of enrollment in various programs were estimated on the basis of these results, and the model's predictive accuracy was assessed.

NTIS PB282971/AS; PRICE CODE: A04; 66 PAGES

3-053 A BENEFIT/COST ANALYSIS OF INSTITUTIONAL TRAINING PROGRAMS IN MICHIGAN PRISONS

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Michigan State University
East Lansing, Mich.

Purchase Order B-9-D-6-3843

May 1978

Descriptors: PRISONERS; VOCATIONAL REHABILITATION; TRAINING EFFECTIVENESS AND IMPACT; RECIDIVISM; COST-BENEFIT ANALYSIS; MICHIGAN

The impact of prison vocational training programs on the post-release legitimate job opportunities of ex-offenders in Michigan was evaluated using an *ex post facto* quasi-experimental design employing multiple regression techniques. The empirical results indicated that the professional programs consisting of computer programming, data processing, electronics, machine drafting, and vocational music, consistently demonstrated a favorable impact on the trainees. As a consequence, they reduced the probability of recidivism and increased the average annual post-prison earnings. In contrast, the programs teaching clerical, operative, craftsman, and service worker skills failed to demonstrate a consistently favorable impact on trainee recidivism or post-prison

earnings. However, enrollment in these training programs as a way of earning credits toward a high school degree did result in higher post-prison earnings. The benefit cost ratios estimated for the professional trainees indicated these programs were a wise investment for the individual trainee, the taxpayer, and society as a whole.

NTIS PB284088/AS; PRICE CODE: A09; 183 PAGES

3-054 THE POTENTIAL IMPACT OF EMPLOYMENT AND TRAINING PROGRAMS ON YOUTH UNEMPLOYMENT

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Contract J-9-M-8-0035

May 1978

Descriptors: EMPLOYMENT AND TRAINING PROGRAMS; YOUTH; GOVERNMENT PROGRAM IMPACT; ECONOMIC MODELS; FISCAL SUBSTITUTION

This paper explores the impact of potential employment and training programs on youth unemployment.

It uses a Markov model in which the flow of individuals out of employment and training programs equals the flow into those programs each period to estimate the impact of a program with specific characteristics on the distribution of individuals by labor force status (unemployed, employed, or not in the labor force). The estimates assume an increase in government spending of \$500 million to provide 163,280 jobs or training slots that would pay the minimum wage for 20 hours a week, with an overhead rate of 10 percent.

Although the estimates indicate a reduction in unemployment rates for the age, sex, and race groups covered by the data, they overstate the impact of such programs to the extent that they ignore the loss of jobs due to fiscal substitution and sectoral displacement. On the other hand, they may ignore any changes in future labor market experience caused by the program. This paper lays the foundation for future examination of the probable magnitude of over- and under-statement present in the estimates.

NTIS PB292449/AS; PRICE CODE: A04; 64 PAGES

3-055 ECONOMETRIC ANALYSIS OF THE EFFECT OF TRAINING UNDER MDTA

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Contract J-9-M-7-0035

October 1978

Descriptors: TRAINING EFFECTIVENESS AND IMPACT; ECONOMIC ANALYSIS AND ECONOMETRICS; MEN; LONGITUDINAL SURVEYS; EARNINGS; MDTA TRAINING PROGRAMS

This paper develops econometric techniques for studying training programs using longitudinal data. These techniques are applied to analyze the effect of Manpower Development and Training Act (MDTA) classroom training on the employment and earnings of male trainees.

Two separate econometric techniques are developed. The first treats employment and earnings separately (but simultaneously) and is primarily an instrumental variable technique. The second treats employment and earnings together by examining only the earnings of the employed, but provides more control for possible bias due to "fixed effects."

The data are from the Office of Economic Opportunity/Department of Labor longitudinal data set and concern training that took place in 1969. Longitudinal data on trainees and members of a comparison group are analyzed. The analysis concludes that participation in the training programs studied had zero or small positive effect on earnings. It is also found, in accordance with previous studies, that cross-section analyses of the effect of training can give misleading results and analyses based on longitudinal data are preferable.

NTIS PB290324/AS; PRICE CODE: A04; 67 PAGES

3-056 PERSON AND ORGANIZATION CHARACTERISTICS INVOLVED IN CETA PROGRAM EFFECTIVENESS: ISSUES IN NEED OF RESEARCH

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College Park, Md.*

Purchase order B-9-M-8-4789

January 1979

Descriptors: CETA PROGRAMS; ORGANIZATIONAL STRUCTURE; EMPLOYMENT AND TRAINING PROGRAM MANAGEMENT; METHODOLOGY

Based upon a general literature review on CETA organizational research, as well as upon selected interviews conducted in a few ongoing CETA programs, Federal agencies, potential employers of CETA participants, and State employment service agencies, research issues regarding the organizational characteristics of CETA organizations and characteristics of their members were identified. Research issues at the interorganizational, organizational, inter- and intra-group, and the individual level of analysis were discussed with respect to their potential impact on CETA organizational effectiveness.

Special emphasis was placed on different perspectives of CETA organization effectiveness that are required for an analysis of personal and organizational characteristics in CETA organizations. This report ends with a brief discussion of methodological and research approach issues that are implied by the main arguments of this paper.

NTIS PB298137/AS; PRICE CODE: A05; 92 PAGES

3-057 THE IMPLICATIONS FOR FISCAL SUBSTITUTION AND OCCUPATIONAL DISPLACEMENT UNDER AN EXPANDED CETA TITLE VI

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Contract J-9-M-7-0154

February 1979

Descriptors: COMPREHENSIVE EMPLOYMENT AND TRAINING ACT (CETA); ECONOMIC ANALYSIS AND ECONOMETRICS; LITERATURE REVIEW; FISCAL SUBSTITUTION

The purpose of this study was to provide evidence on the efficacy of the expanded Comprehensive Employment and Training Act Public Service Employment (CETA PSE) programs as a means of reducing unemployment in a noninflationary way. The study consisted of: (1) A review of existing literature; (2) the development of appropriate analytic models; and (3) empirical analyses aimed at providing information on fiscal substitution.

The empirical analysis was limited to estimating the fiscal substitution effects of CETA, estimating the effects of CETA on the functional distribution of local government employment, and estimating the effects of CETA on wage rates of local government employees.

NTIS PB292497/AS; PRICE CODE: A07; 132 PAGES

3-058 OPEN ENDED PUBLIC SERVICE EMPLOYMENT PROGRAMS: THE JOBS MICROSIMULATION MODEL

Myles Maxfield, Jr., et al
Mathematica Policy Research
Washington, D.C.

Contract J-9-M-7-0043

February 1979

Descriptors: PUBLIC EMPLOYMENT PROGRAMS; LABOR MARKET BEHAVIOR; WELFARE PROGRAMS; WELFARE REFORM AND INCOME MAINTENANCE; JOB OPPORTUNITIES IN THE BUSINESS SECTOR (JOBS); ECONOMIC MODELS

This final report, consisting of several documents by different authors, constructs a model of welfare programs which produces estimates of the budgetary costs and caseloads of alternative hypothesized programs.

The first paper, by Myles Maxfield, presents an overview of the project, including the main policy issues addressed and the principal features and results of the Job Opportunities in the Business Sector (JOBS) model. A microsimulation model of employment-related welfare reform programs is constructed. It focuses on the decision of eligible persons to apply for public service employment. Their decision is based on an explicit treatment of employment and income expectations and of the monetary value of nonmarket time. Estimates of the caseload of the Program for Better Jobs and Income (PBJI) are produced.

The second paper, by David Edson, discusses a specific application of the JOBS model to the administration's PBJI. The author computes transfer payments, predicts participation behavior of individuals and families, and aggregates program caseload by summing over the sample of microdata. The report estimates that PBJI increases costs by 75 percent relative to current AFDC, SSI, and Food Stamp programs. This estimate includes cash assistance for 15 million families and a public service employment program providing a full year equivalent of 1.7 million jobs.

The paper by Fredric Raines hypothesizes a model in which reservation wages are determined by the demand for leisure, the duration of employment, and home productivity.

The author also uses a model estimated with regression analysis using the self-reported reservation wages from the National Longitudinal Surveys. Results confirm the hypothesis. The predicted values are used in the microsimulation model.

Barbara Delaney uses the model to examine the determinants of the time allocated for men. Based on data from the Panel Survey of Income Dynamics, the empirical analysis suggests that the market labor supply of men is very insensitive to nonmarket characteristics.

This study was a basic resource in formulating the Administration's 1978 proposal for a "Program for Better Jobs and Income."

NTIS PB293205/AS; PRICE CODE: A06; 110 PAGES

3D. MINIMUM WAGE

3-059 MINIMUM WAGE LEGISLATION IN THE UNITED STATES

Finis Welch
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New York, N.Y.

Purchase order OAS 73-3119

July 1973

Descriptors: MINIMUM WAGE LAWS; TEENAGERS; INDUSTRIAL STRUCTURE; LABOR FORCE PARTICIPATION; GOVERNMENT PROGRAM IMPACT

This study focused on the employment effects of minimum wage legislation, especially the industrial distribution of teenage employment associated with incomplete coverage. Unlike the typical approach that assumes employment effects are completely demand determined, consideration of incomplete coverage suggested that changes in employment result from interaction between supply and demand, in this case as in most others.

The evidence of reduced teenage employment resulting from increased wage minimums or extended coverage was found to be convincing. The distribution of this reduction by age, sex, and color was, however, open to question, evidently because of the large sampling error in the disaggregated data.

The evidence of minimum wage effects on labor force participation was weak and, in view of other studies suggesting that employment and labor-force effects may be quantitatively very similar, no effect of minimum wages on unemployment rates was identified.

See "Minimum Wage Legislation in the United States: I. Comment, II. Reply" by Frederick B. Siskind and Finis Welch for a later study correcting these estimates.

NTIS AD786639/AS; PRICE CODE: A03; 49 PAGES

3-060 MINIMUM WAGE POLICY TOWARDS YOUTH: SOME RESEARCH GUIDELINES

Phillip G. Cotterill
Miami University
Oxford, Ohio

Contract J-9-E-5-0028

December 1974

Descriptors: MINIMUM WAGE LAWS; YOUTH; WAGE DIFFERENTIALS; GOVERNMENT POLICIES; AGE DIFFERENTIALS; ELASTICITY OF SUBSTITUTION; EMPLOYMENT; LOW-WAGE JOBS

This study argued that the estimation of elasticities of substitution between youth and adults for a variety of low-wage jobs is the appropriate approach to research for policy decisions concerning a differential youth minimum wage and that the observation of changes in the youth/adult composition of employment is the starting point for such an approach.

The chief—but tentative until better data are available—conclusion was that no research (including this study and the author's earlier study of retail trade, extended here) provides empirical support for a differential youth minimum wage. A major step toward acquiring relevant data would be to modify establishment surveys (such as the Bureau of Labor Statistics Industry Wage Surveys) to include basic information on the composition of employment by age.

NTIS PB256330/AS; PRICE CODE: A04; 52 PAGES

3-061 ADULT DISEMPLOYMENT EFFECTS OF A YOUTH MINIMUM WAGE DIFFERENTIAL

Alan A. Fisher
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Fullerton, Calif.

Purchase order B-9-E-5-2152

June 1975

Descriptors: LABOR DEMAND; MINIMUM WAGE LAWS; GOVERNMENT PROGRAM IMPACT; YOUTH; UNEMPLOYMENT; WAGE DIFFERENTIALS; MATURE WORKERS

Assuming that demand for labor and therefore ultimately the equilibrium wage are functions of skill level as perceived by employers, this study used a model in which adult disemployment from a youth differential in the minimum wage depended on the number of low-wage jobs where wages for teenagers can fall below the adult minimum, the percentage of those jobs currently held by adults, the percentage that wages fall for teenagers, and the substitutability between adults and teenagers. Each of these aspects were discussed.

Net adult displacement was estimated to be less than the number of new jobs created. But calculation of the net improvement to society must consider the social costs of adult compared with teenage unemployment, effects on crime, and related social issues. It was unclear at what marginal exchange rate the extra teenage jobs would outweigh the cost of adult disemployment. Other considerations in deciding on a youth minimum wage differential were seen as the reduction in the youth population within a few years, the tendency for the lag in wage rate adjustment to cause more severe displacement of adults in the short run, and the differences in State minimum wage legislation.

NTIS PB256258/AS; PRICE CODE: A04; 54 PAGES

3-062 EFFECTS OF MINIMUM WAGES ON THE AGE COMPOSITION OF YOUTH EMPLOYMENT

Flint Welch and James Cunningham
Santa Monica, Calif.

Purchase order B-9-E-5-2070

July 1975

Descriptors: MINIMUM WAGE LAWS; TEENAGERS; EMPLOYMENT PATTERNS; GOVERNMENT PROGRAM IMPACT; AGE DIFFERENCES

The purpose of this study was to estimate the effects of minimum wages on the age composition of youth employment and to decompose these estimates into scale and substitution components for calculating effects of differential minimums. Teenagers were divided into those 14-15, 16-17, and 18-19 years old.

Using external evidence, it was estimated that the pattern of Federal and State minimums existing in spring 1970 had effectively increased costs of employing 14-15 year old workers by 37 percent, by 19 percent for 16-17 year olds, and by 11 percent for those 18-19. Because uniform minimums have larger wage effects for younger workers, data for these groups showed larger employment effects. The fixed nominal level of the Federal minimum resulted in larger relative wage effects in States where wages would otherwise be low and empirically swamped variations in State laws.

Because of large standard errors of estimation, the decomposition of estimated gross employment elasticities into substitution and scale components was not wholly successful.

NTIS PB256270/AS; PRICE CODE: A03; 30 PAGES

3-063 TWO POLICY QUESTIONS REGARDING THE MINIMUM WAGE

Terence F. Kelly
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Washington, D.C.

Contract J-9-M-5-0113

February 1976

Descriptors: MINIMUM WAGE LAWS; YOUTH; EMPLOYMENT; POVERTY; GOVERNMENT PROGRAM IMPACT

This study explored the relationship between changes in the minimum wage and (1) the employment of teenagers and (2) the prevalence of poverty.

The study implied that the minimum wage affects the industrial distribution of teenagers, causing a net reduction in employment opportunities.

A simulation of the poverty effectiveness of alternative levels of the minimum wage, based on data from matched subsamples of the 1974 March and May Current Population Surveys on individual wage rates and total family income, suggested that increases in both coverage (and even compliance) and level of the minimum wage were relatively poverty ineffective. Insufficient hours of work, large family size, and nonrepresentativeness of the sample were suggested as possible explanations of the ineffectiveness.

NTIS PB256276/AS; PRICE CODE: A03; 36 PAGES

3-064 UNEMPLOYMENT EFFECTS OF MINIMUM WAGES

Jacob Mincer
National Bureau of Economic Research
New York, N.Y.

Contract L-74-135

February 1976

Descriptors: MINIMUM WAGE LAWS; UNEMPLOYMENT; LOW-WAGE JOBS; LABOR MOBILITY; STATISTICAL ANALYSIS; ECONOMIC ANALYSIS AND ECONOMETRICS; GOVERNMENT PROGRAM IMPACT

This paper explores the analytical distinction between employment and unemployment effects of minimum wages in the hope of providing some understanding of the observations. This distinction arises in one or both of the following cases: (1) When only part of the economy is covered by minimum wage legislation; and/or (2) when the supply of labor to the market is not perfectly inelastic. The conditions which create the distinction are important and must be treated explicitly in the analysis of minimum wage effects. Of particular interest is the direction of labor mobility resulting from the imposition or increase of minimum wages. An outflow from the covered sector implies some withdrawals from the labor force and some reemployment in the uncovered sector as well as a decrease in the wage in that sector. In the opposite case, there are net inflows of labor into the covered sector both from the nonmarket and from the "free" sector, in turn raising the wage in the latter sector as well. The conditions which distinguish these opposite movements, as well as the specific effects of increasing minimum wages and of coverage on wages in the uncovered sector, unemployment, and labor force withdrawals are explored.

Regressions are run for 10 age-sex-color groups using quarterly Bureau of Labor Statistics (BLS) data for 1954-69. Findings of negative labor force effects indicate that the demand elasticities are not so small as to cause an increase in the labor force, and that low-wage workers who are not employed in the covered sector perceive the minimum wage hike as a deterioration of their wage prospects.

NTIS PB283302/AS; PRICE CODE: A03; 30 PAGES

3-065 MINIMUM WAGE LEGISLATION IN THE UNITED STATES: I. COMMENT, II. REPLY

Frederic B. Siskind and Finis Welch
U.S. Department of Labor/ASPER
Washington, D.C.

May 1976

Descriptors: MINIMUM WAGE LAWS; TEENAGERS; UNEMPLOYMENT; STATISTICAL ANALYSIS; INDUSTRIAL STRUCTURE; LABOR FORCE PARTICIPATION; GOVERNMENT PROGRAM IMPACT

Part I of this paper presents a replication of the time series regression analysis conducted in the Welch study "Minimum Wage Legislation in the U.S." (see contract OAS 73-3119). It points out that in using the Bureau of Labor Statistics unpublished data Welch inadvertently used employment data for teenagers 16-19 rather than for teenagers 14-19 for 1966-68. The result of this error was to lower measured teenage employment levels in 1966-68, thereby lowering the values of the teenage/adult employ-

ment ratio for those years. Since the level of the minimum wage was increased in 1967 and 1968, and coverage was expanded in 1967, this data error severely biased regression estimates. Using the correct data in each regression reduced the coefficient on the minimum wage variable to a degree that statistically it made it inconsistent with the hypothesis that the minimum wage had reduced aggregate teenage employment. There was also an increase in the negative impact of the adult unemployment rate and a reversal in the sign on the proportion of 16-19 population in Federal youth employment programs, thus invalidating Welch's estimates of the impact of an additional placement from the Federal programs. The results of the industry regressions estimated for the impact of minimum wage increases and coverage changes on the industrial distribution of teenage employment would also be likely to change with the use of the correct data. Several institutional factors which "interfere" with estimation attempts of the impact of Federal minimum wage were added.

In Part II, Welch reestimated the industrial distribution equation using the correct data. The earlier results for manufacturing and retail trade remained unchanged; "significance" for the service sector was lost. The aggregate employment equations were reestimated also, and there were no apparent minimum wage effects for the 14-19 aggregate, but there was an effect for those teenagers 16-19.

NTIS PB283553/AS (BOTH VOLUMES); PRICE CODE: A02; 12 PAGES

3-066 THE IMPACT OF THE FEDERAL MINIMUM WAGE ON THE GEOGRAPHICAL DISTRIBUTION OF EMPLOYMENT

Joyce M. Nussbaum and Donald E. Wise
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Princeton, N.J.

Contract J-9-M-5-0052

February 1977

Descriptors: FAIR LABOR STANDARDS ACT; GOVERNMENT PROGRAM IMPACT; EMPLOYMENT; INDUSTRIAL STRUCTURE; SOUTHERN STATES

The objectives of this project were to develop a model to determine the geographic effects of the uniform minimum wage on employment and to utilize the model to obtain estimates of how the distribution of employment would differ in the absence of the minimum wage effect. The model was based on a partitioning of the economy into four region-industry sectors.

It was found that wages in low-wage industries respond to the minimum wage much more than wages in high-wage industries. In the high-wage industries, the minimum wage effect was more pronounced in the South. On the other hand, in the low-wage industries, the minimum wage effect appeared to be slightly stronger in the North. While the minimum wage tended to reduce employment in all sectors, the gross effect and the distribution among industries should receive greater weight in formulating policy than the distribution between the South and the North.

NTIS PB266070/AS; PRICE CODE: A06; 104 PAGES

3-067 MINIMUM WAGE LAWS: THEIR IMPACT ON THE WORKWEEKS AND FRINGE BENEFITS OF UNSKILLED WORKERS

David Luskin
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Rochester, N.Y.

Contract J-9-E-6-0051

August 1977

Descriptors: MINIMUM WAGE LAWS; WORK SCHEDULES; FRINGE BENEFITS; LOW-WAGE JOBS; UNSKILLED WORKERS; FRINGE BENEFITS

This paper develops and tests the propositions that minimum wage laws have restricted the length of the workweek and fringe benefit provisions among low-wage earners. The author argues that minimum wages may be shifted onto labor by means of adverse alterations in terms of employment other than the cash wage, and demonstrates that an effective minimum wage need not always decrease employment when the length of the workweek is endogenous.

Two analogous "equalizing models" presented are used to analyze the effects of minimum wage on a market for "unskilled" labor. In each model one nonwage job characteristic is endogenous. A negative tradeoff is posited between cash wages and fringe benefits. A positive dependence of the hourly wage rate on the length of the workweek is rationalized by gains in efficiency from continuity of effort. Hypotheses are derived from these models that can be tested with aggregated data. The tests are applied to data on the nursing home industry, and the possibility of aggregational biases in the tests is examined.

A two-sector "fringe benefits" model is developed to consider the implications of incomplete minimum wage coverage. The empirical results suggest that minimum wages may tend to reduce the length of the workweek and the prevalence of free meals.

NTIS PB279511/AS; PRICE CODE: A07; 129 PAGES

3-068 COMPLIANCE WITH THE MINIMUM WAGE LAW

Orley Ashenfelter and Robert S. Smith
U.S. Department of Labor/ASPER
Washington, D.C.

June 1977

Descriptors: MINIMUM WAGE LAWS; GOVERNMENT POLICIES; EFFECTIVENESS OF PROGRAMS; EMPLOYER ATTITUDES; SURVEYS

This paper examines the incentives for profit maximizing firms to comply with the minimum wage provisions of the Fair Labor Standards Act. The primary conclusion is that, if government enforcement is random, firms are led to systematically violate the provisions of this law in such a way as to mitigate what would otherwise be its primary effects. This conclusion leads to the examination of the actual penalties and government strategy for enforcement of the law. It is concluded that the penalties are far from onerous, but that the strategy for enforcement is far from random. As with most analyses of undetected illegal behavior, noncompliance can rarely be established without ambiguity. The investigators use one year's data collected from employees

that may contain wage rate inaccuracies where there is no incentive to understate violations. They find that only 64 percent of those workers who would otherwise earn less are earning the minimum wage. On the other hand, using data collected from employers (where wages may be more accurately stated but where there is an incentive to understate violations) they find that 77 percent of those workers who would otherwise earn less are earning the minimum wage. This difference in reporting establishes the quantitative significance of the compliance issue, and leads to a discussion of its implications for future research and issues of public policy.

NTIS PB285120/AS; PRICE CODE: A02; 24 PAGES

3-069 THE EMPLOYMENT IMPACT OF THE OVERTIME PROVISIONS OF THE F.L.S.A.

Joyce M. Nussbaum and Donald E. Wise
Mathtech, Inc.
Princeton, N.J.

Contract J-9-E-6-0105

December 1977

Descriptors: WORK SCHEDULES; SURVEYS; EMPLOYMENT; FRINGE BENEFITS; MINIMUM WAGE LAWS

This study analyzed the impact of the overtime wage premium on the employer's choice between overtime and additional employment. In the theoretical phase of the analysis, a model of overtime hours and employment (as functions of the quasi-fixed and marginal components of labor costs) was developed. These relationships were then estimated empirically. Focus was placed on the structure of the overtime employment trade-off viewed at the establishment level within industries, and also on the structure of the trade-off considered at a more aggregate level across industries. The empirical analysis was conducted in three stages: (1) Replication of the 1966 Ehrenberg study, "Fringe Benefits and Overtime Behavior," using data based on the 1974 Survey of Employer Expenditures for Selected Compensation Practices (EEC); (2) modification of the intraindustry analysis to improve the specification of some of the variables and to modify some of the statistical and econometric procedures; and (3) analysis of interindustry differences using aggregate data also obtained from EEC, pooling observations from the 1968, 1970, 1972, and 1974 surveys.

Both theoretical and statistical analysis confirmed the hypothesis that an increase in the overtime premium would cause a reduction in average annual overtime hours. However, the hypothesis that this reduction in overtime hours would be compensated for by a commensurate increase in employment was not supported.

NTIS PB281386/AS; PRICE CODE: A07; 127 PAGES

3-070 THE EFFECT OF MINIMUM WAGES ON THE YOUTH LABOR MARKET: AN EXPANDED MODEL

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Raleigh, N.C.

Contract J-9-M-8-0112

March 1979

Descriptors: MINIMUM WAGE LAWS; LABOR MARKET; COST-BENEFIT ANALYSIS; GOVERNMENT PROGRAM IMPACT

This report seeks: (1) To provide a model of minimum wages that takes into account the possible negative effects that a minimum wage hike can have on employers' non-wage expenditures on their employees and (2) to provide better models of minimum wages that can be used to identify the effects of various government policies on the impact of minimum wages. A reduced form equation is derived that describes how a minimum wage hike will affect the value of searching for employment and the welfare of workers.

The main findings of this paper are: (1) If firms react to a minimum wage hike by reducing their fringe benefits, the hike will reduce the value of search and the utility of all workers. (2) The negative effects of a minimum wage hike will be felt most by those whose pre-hike benefits were relative to their mandated wage hike. (3) The short-run effects of a minimum wage hike are more negative than its long-run effects because in the short run the availability of jobs will be temporarily reduced as firms contract their employment. It is concluded that the positive effects of minimum wage hikes may be smaller and the negative effects more widespread than past models have suggested.

NTIS PB293489/AS; PRICE CODE: A04; 51 PAGES

3E. UNEMPLOYMENT INSURANCE

3-071 THE EFFECT OF UNEMPLOYMENT INSURANCE LAWS AND ADMINISTRATION ON UNEMPLOYMENT RATES

Arlene Holen and Stanley A. Horowitz
Center for Naval Analyses
Arlington, Va.

Contract L-72-86

August 1973

Descriptors: UNEMPLOYMENT INSURANCE; GOVERNMENT PROGRAM IMPACT; LAWS, LEGISLATION; FEDERAL FUNDING

This study of State unemployment insurance (UI) laws focused on eligibility, level and duration of benefits, and stringency of enforcement.

Variations in the statutory provisions studied did not aid materially in explaining variation in the insured unemployment rates. Unlike several previous studies, this study found that more attractive benefit schemes had no significant effect on the level of unemployment. Denial of benefits was lower in States providing for mail claims and higher in those where Federal expenditures for UI administration and the proportion of time spent on nonmonetary determinations were larger and those which permitted biweekly claims. In the latter States, lower insured unemployment rates were attributable about equally to lower labor force participation and higher reemployment rates. Unemployment was significantly lower in States with rigorous enforcement of eligibility provisions than in those without rigorous enforcement.

(For other reports on this subject under the same contract number, see the Index of Contract Numbers.)

NTIS PB233580/AS; PRICE CODE: A03; 34 PAGES

3-072 SOME LABOR MARKET IMPLICATIONS OF THE PAYROLL TAX FOR UNEMPLOYMENT AND OLD AGE INSURANCE

John H. Pencavel
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Stanford, Calif.

Purchase order OAS 74-1576

January 1974

Descriptors: UNEMPLOYMENT; UNEMPLOYMENT INSURANCE; GOVERNMENT PROGRAM IMPACT; LABOR FORCE BEHAVIOR

This study considered various implications of unemployment insurance taxes for the operation of labor markets. It analyzed the payroll tax within the framework of partial equilibrium models, focusing upon its impact on behavior in the labor market.

The unemployment tax induced firms to change the skill mix of employees and reduce turnover. Analysis of UI tax payments and benefits suggested large and noteworthy deviations from a fully experience-rated system, which might, however, have little effect on labor market behavior. Recent British experience, for example, has shown that employers and employees do, indeed, respond to the manner in which unemployment compensation is financed and disbursed. The benefits are distributed uniformly among income classes, with less going to the lower income class, while some employers are paying less taxes relative to their former employees' benefits. Research was recommended to determine the extent of tax evasion by employers.

NTIS PB256648/AS; PRICE CODE: A03; 41 PAGES

3-073 THE EFFECT OF UNEMPLOYMENT INSURANCE AND ELIGIBILITY ENFORCEMENT ON EMPLOYMENT

Arlene Holen and Stanley A. Horowitz
Center for Naval Analyses
Arlington, Va.

Contract L-72-86

April 1974

Descriptors: UNEMPLOYMENT; UNEMPLOYMENT INSURANCE; GOVERNMENT PROGRAM IMPACT; FEDERAL FUNDING; LAWS, LEGISLATION; LABOR FORCE BEHAVIOR

To disentangle the interactions between the insured unemployment rate and the liberality of unemployment insurance (UI) benefits, on which previous studies have been inconclusive because of technical errors, the equations of the model given in this study were estimated simultaneously using two-stage least squares.

It was found that more liberal benefits do lead to higher levels of unemployment. Tests with a more detailed version of the model (five components of overall liberality) showed that denial of benefits to applicants determined ineligible upon application of a work test had the clearest influence on the unemployment rate. A doubling of the denial rate was estimated to reduce unemployment by 1.4 percent. A direct and apparently causal link was found between funding for system administration and the unemployment rate. Therefore, the authors concluded, the Federal Government

may exercise substantial influence on the enforcement of eligibility standards through funding decisions.

NTIS PB253584/AS; PRICE CODE: A03; 34 PAGES

3-074 THE DIRECT LABOR EFFECTS OF THE U.S. UNEMPLOYMENT INSURANCE SYSTEM: A REVIEW OF RECENT EVIDENCE

Gary S. Fields
Yale University
New Haven, Conn.

Purchase Order OAS 74-3375

December 1974

Descriptors: INCOME MAINTENANCE; GOVERNMENT PROGRAM IMPACT; UNEMPLOYMENT; UNEMPLOYMENT INSURANCE

This study focused on the efficiency of unemployment insurance (UI), as a tool for income maintenance, the adequacy of benefit levels and who benefits from them, the influence of UI on unemployment and on the economy, and the distribution effects of the UI.

Workers covered by UI were found to lose only a small fraction of their earnings when fully employed, but for the many unemployed workers not eligible for benefits, other social welfare programs must provide income maintenance. Low- and middle-income families may receive a larger share of the UI benefits than their corresponding share of the costs. The empirical evidence did not suggest that UI has a strong effect on unemployment. Nor has it been determined whether more unemployment is good or bad for the economy.

Therefore, fears that unemployment would rise markedly because of the extension of UI benefits were seen as largely unwarranted.

NTIS PB256303/AS; PRICE CODE: A04; 58 PAGES

3-075 THE EFFECTS OF THE 1974 U.I. EXTENSIONS ON UNEMPLOYMENT

David O'Neill, Kathleen Classen, and Arlene Holen
Center for Naval Analyses
Arlington, Va.

Contract L-72-86

December 1974

Descriptors: UNEMPLOYMENT INSURANCE; ECONOMIC WELFARE; GOVERNMENT PROGRAM IMPACT; LAWS, LEGISLATION

This study considered the effect of modifications embodied in the National Employment Assistance Act (NEAA) of 1974, extending the coverage and duration of unemployment insurance (UI) benefits to alleviate problems of workers laid off during the recession. Estimates were made of the percentage increases in unemployment caused by the modifications. Administrative problems inherent in extension of coverage to previously uncovered workers and data on the characteristics of those exhausting benefits were presented.

The nature of the cyclical downturn and the ability of UI administrators to monitor claims were found to influence both who benefits from extended coverage and duration,

and how much they benefit. Federal financing was found to provide no incentive for States to monitor eligibility of newly covered workers, which, if done, would reduce insured unemployment considerably.

NTIS PB253585/AS; PRICE CODE: A02; 22 PAGES

3-076 EFFECTS OF UNEMPLOYMENT INSURANCE ENTITLEMENT ON DURATION AND JOB SEARCH OUTCOME

Arlene Holen
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Arlington, Va.

Contract L-72-86

May 1975

Descriptors: UNEMPLOYMENT INSURANCE; GOVERNMENT PROGRAM IMPACT; PUBLIC EMPLOYMENT SERVICE; JOB SEARCH; UNEMPLOYMENT

This study sought to determine how UI benefit levels, potential duration, and work test enforcement affect the duration of compensated unemployment and the outcome of job search. The effects of special job search assistance to UI claimants were also studied. The 20,000 observations used were collected during an experimental program—Service to Claimants (STC)—conducted in UI offices in five cities during 1969 and 1970.

Findings included: (1) Higher benefit levels and longer potential duration both lengthened and increased unemployment. (2) Job search outcome improved with higher benefit levels, but further investigation is required. (3) The duration of compensated unemployment was highly sensitive to duration entitlement. (4) Adjustments in potential duration, in response to higher unemployment rates, need not be very large in order to stabilize exhaustion rates. (5) Large increases in potential duration led to massive increases in UI benefits paid. (6) The built-in safeguards designed to modify the work disincentive effects of unemployment compensation were not working as well as they could: Moderate increases in work test enforcement would reduce both duration and exhaustion rates while improving job search outcomes. Similar improvements could be brought about by providing claimants with additional job search assistance. (7) Work test enforcement had many points of similarity with job search assistance (for example, differences in quantity and quality of staff resources), and both seemed to play an effective role in administering unemployment insurance.

NTIS PB267756/AS; PRICE CODE: A03; 48 PAGES

3-077 AN EVALUATION OF PROPOSED ALTERNATIVES FOR INCREASING UI TAX REVENUES

Christopher Jehn
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Contract L-72-86

May 1975

Descriptors: TAXES; UNEMPLOYMENT INSURANCE;
GOVERNMENT POLICIES

Because the status of many State funds requires that unemployment insurance (UI) revenues be increased to cover increased levels of benefits and unemployment, this study explored the alternatives of increasing maximum tax rates or increasing taxable wages.

Political and social arguments did not significantly favor either alternative. Economic arguments, however, showed that increasing both taxable wages and maximum tax rates would not only generate the required increased revenue, but also increase the incentives for firms to reduce labor turnover and thus lower unemployment.

NTIS PB253622/AS; PRICE CODE: A02; 14 PAGES

3-078 THE INCENTIVE EFFECTS OF THE U.S. UNEMPLOYMENT INSURANCE TAX

Frank Brechling
Center for Naval Analyses
Arlington, Va.

Contract L-72-86

June 1975

Descriptors: UNEMPLOYMENT INSURANCE; INDUSTRY
PRACTICES; EMPLOYER PRACTICES AND POLICIES; ECONOMIC
ANALYSIS AND ECONOMETRICS; LAYOFFS

This paper constructs theoretical models of the effects of the unemployment insurance tax upon the behavior of firms and derives implications for econometric analysis and economic policy. The determination of the optimum layoff rate under the reserve ratio method of experience rating is discussed. The individual firm is envisaged to maximize the present value of its future cash flows subject to the dynamic constraint of the tax structure. The firm can raise its layoff rate (and thereby, for instance, improve the quality of its labor force) but only at the expense of higher taxes which are payable largely in the future. The optimal layoff rate equates the present marginal benefit with the future marginal cost.

The following predictions of the theory are derived: First, in spite of the firm's dynamic constraints, its optimal layoff rate is constant over time when the exogenous variables remain constant. Second, the optimal layoff rate tends to rise with: (1) Increases in the rate of interest; (2) decreases in the slope of the tax schedule; and (3) decreases in the benefit payments per unemployment spell. Third, the taxable wage base which (*ceteris paribus*) minimizes the layoff rate is equal to one-half the annual earnings per employee.

NTIS PB282329/AS; PRICE CODE: A06; 114 PAGES

3-079 THE EFFECTS OF UNEMPLOYMENT INSURANCE ON THE DURATION OF UNEMPLOYMENT AND JOB SEARCH- SUMMARY

Kathleen Classen
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Contract L-72-86

June 1975

Descriptors: UNEMPLOYMENT INSURANCE; INCENTIVES,
COMPARATIVE STUDIES; DURATION OF UNEMPLOYMENT; JOB
SEARCH

The purpose of this study was to reexamine the effects of unemployment insurance (UI) benefit levels using a better data set than that used in the Hoken-Horowitz paper. The data were obtained from the Pennsylvania Continuous Wage and Benefit History (CWBH). They consisted of earnings records from the reports filed by employers subject to the unemployment insurance tax and from the histories of people who filed for benefits. After a substantial increase in benefits, claimant records were matched for 1967 and 1968 with the earnings records of the same claimants for the two calendar years after the year in which unemployment began. A model was developed to estimate the effect of benefits on the number of benefit weeks for more than 3,200 claimants. The variables included in the model were: Sex; age; the industry of the claimant before unemployment; cyclical factors; and the weekly benefit amount.

It was concluded that the 1968 increase in benefits lengthened the duration of unemployment. A \$15 increase led to more than an additional week of unemployment. There was no evidence that this additional unemployment resulted in an increase in productive job search.

NTIS PB281681/AS; PRICE CODE: A02; 12 PAGES

3-080 THE EFFECT OF UNEMPLOYMENT INSURANCE ON THE DURATION OF UNEMPLOYMENT AND SUBSEQUENT EARNINGS

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Contract L-72-86

September 1975

Descriptors: UNEMPLOYMENT INSURANCE; DURATION OF
UNEMPLOYMENT; INCENTIVES; COMPARATIVE STUDIES; JOB
SEARCH

Critics of the unemployment insurance system claim that unemployment insurance benefit payments lead to increased unemployment. Advocates of the system claim that this effect is small and that it is at least partially offset by the increased future productivity that results from increased job search. This paper tests for these two effects of unemployment insurance by estimating the impact of the weekly benefit amount on the duration of unemployment and post-unemployment earnings for Pennsylvania claimants before and after a significant increase in the State's benefit schedule.

The evidence leads to the conclusion that increases in unemployment insurance are associated with significant increases in the duration of unemployment: A \$15 increase in benefits increases the duration of unemployment by more than 1 week. This increase in duration, however, is not associated with increases in post-unemployment earnings.

NTIS PB281682/AS; PRICE CODE: A03; 44 PAGES

3-081 INCIDENCE OF THE FINANCING OF UNEMPLOYMENT INSURANCE

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Purchase order B-9-M-5-1074

September 1975

Descriptors: TAXES; UNEMPLOYMENT INSURANCE

Because the financing of unemployment insurance (UI), even with experience rating, differs substantially from a system in which taxes paid by an industry roughly equal payments attributable to the industry, this study treated the differences between taxes and benefits as net taxes or net subsidies. It used a two-sector model to examine the incidence of the cross-subsidization of labor in various industries implicit in the present UI system.

Whether labor gained relative to capital depended in a rather complicated way upon the elasticity of demand for the products, the ease of factor substitution and relative factor intensities in the two sectors, and the sizes of the two sectors. Only detailed analysis based on the actual values of parameters in the U.S. economy could determine the direction and magnitude of any redistribution, but labor appeared to gain little, if any. Furthermore, any redistribution among consumers due to departures from complete experience rating could probably be ignored. Finally, the cross-subsidies distorted the use of the Nation's resources.

NTIS PB257067/AS; PRICE CODE: A04; 105 PAGES

3-082 THE EFFECTIVENESS OF THE U.I. PROGRAM IN REDUCING WORKERS' RISK

Martin Neal Bailly
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New Haven, Conn.

Purchase order B-9-M-5-1845

September 1975

Descriptors: GOVERNMENT PROGRAM IMPACT; JOB SEARCH; ECONOMIC WELFARE

This study examined the unemployment insurance (UI) program to determine how much insurance workers need and in what form it must be provided. Criteria for setting benefit levels were derived and compared with the existing UI program. UI as contingent saving was examined. Models were developed to determine optimal values of search intensity and job acceptance.

It was found that saving has limitations in the context of uncertainty. A sizable fraction of benefits was distributed to middle- and even upper-income families because of the insurance nature of the program. Distrust of government bureaucracy and reliance on individual search, combined with a rather inefficient bureaucracy, provided a self-reinforcing pattern which kept search behavior from being socially efficient. Workers were found to base their search and acceptance behavior on prevailing UI benefit and tax rates. The optimal benefits and tax rates were then set, given the behavior of the workers. With incentives, the level of the insurance program reflected a tradeoff between the risk aversion of workers and the incentive effect on search.

NTIS PB257070/AS; PRICE CODE: A04; 51 PAGES

3-083 EQUITY AND EFFICIENCY CONSIDERATIONS IN THE UNEMPLOYMENT INSURANCE "WORK TEST": AN ANALYSIS OF LOCAL OFFICE ADMINISTRATIVE PRACTICE

David W. Stevens and V. Christine Austermann
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Columbia, Mo.

Contract L-73-119

October 1975

Descriptors: UNEMPLOYMENT INSURANCE; GOVERNMENT PROGRAM IMPACT; ADMINISTRATION OF LAWS

This study examined administrative procedures in enforcing unemployment insurance (UI) regulations in two local offices in Missouri to identify the decision points at which discretion could be exercised in interpreting administrative regulations, to establish criteria that determined how this discretion was exercised, and to assess the equity of UI enforcement procedures. This research also involved a statistical analysis of selected Employment Service (ES) transactions on behalf of UI claimants to identify patterns of variation in the delivery of ES services, establish causal relations, and examine the actual and potential consequences of such patterns.

Local office operational data did not provide sufficient information to examine the relationship between administrative enforcement of UI regulations and outcome measures. State level observations glossed over much of the variability in administrative claimant actions at the local level. Accounting for time spent in administrative determination activities, particularly in the case of the Job Service, was less than exact. The likelihood of denial of benefits for refusal of suitable work was relatively low and varied in ways unrelated to UI program purposes. Availability for work, active search for work and willingness to work were separate concepts with different implications for claimant intent. The "test" of claimant willingness to accept available suitable employment was administered by the Job Service, which had incentive to be disinterested in it.

The study called for more information on the reasons for inefficient use of the Job Service and for variations in denial/determination rates, and on the equity and efficiency effects of distinguishing among claimants at the time of filing.

NTIS PB254174/AS; PRICE CODE: A04; 70 PAGES

3-084 A MODEL OF UNEMPLOYMENT INSURANCE AND THE WORK TEST

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Arlington, Va.

Contract L-72-86

December 1975

Descriptors: UNEMPLOYMENT INSURANCE; UNEMPLOYMENT; MODELS; JOB SEARCH; LABOR FORCE PARTICIPATION

This paper develops a simple model of incentives that unemployment insurance provides to two groups of unemployed people: those who are looking for work and those who are not. The model incorporates the effect of unem-

ployment insurance on both unemployment and labor force participation. First, the model is estimated for various demographic groups using ordinary least squares methods. Then, as in the Holen-Horowitz paper, a simultaneous equation model is developed that examines the unemployment insurance (UI) system as the product of the laws and policies used to administer it. This multi-equation model is estimated using two-stage least squares.

Both the single equation and the simultaneous equation estimates tend to support the hypothesis that ease of passing the work test accounts for the adverse effect of the unemployment insurance system on employment.

NTIS PB281503/AS; PRICE CODE: A03; 34 PAGES

3-085 UNEMPLOYMENT INSURANCE TAXES AND LABOR TURNOVER: SUMMARY OF THEORETICAL FINDINGS

Frank Brechling
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Contract L-72-86

December 1975

Descriptors: ECONOMIC ANALYSIS AND ECONOMETRICS; UNEMPLOYMENT; UNEMPLOYMENT INSURANCE; EMPLOYER PRACTICES AND POLICIES; LAYOFFS; INCENTIVES

This paper describes the main findings of a long theoretical study of the incentive effects of the U.S. unemployment insurance tax as well as some intuitive explanations of these findings.

The theoretical analysis underlying this report yields the following results: (1) A firm which permanently reduces its stock of unemployment experiences a permanent reduction in its unemployment tax. (2) The unemployment insurance tax tends to change the firm's relative cost of hours and men. (3) The unemployment insurance tax embodies incentives which discourage the firm's labor turnover in the form of both voluntary quits and layoffs. These incentive effects arise for two reasons: First, the taxable payroll (which is the tax base of the unemployment insurance tax) tends to rise with separations which are replaced with new hires. Second, an experience rated unemployment insurance tax tends to discourage layoffs because tax rates tend to rise with the level of layoffs.

NTIS PB281708/AS; PRICE CODE: A02; 22 PAGES

3-086 THE ECONOMIC EFFECTS OF UNEMPLOYMENT INSURANCE BENEFITS ON UNEMPLOYED WORKERS' JOB SEARCH

Ronald G. Ehrenberg and Ronald L. Oaxaca
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Amherst, Mass.

Contract L-74-49

June 1976

Descriptors: UNEMPLOYMENT INSURANCE; LABOR FORCE BEHAVIOR; GOVERNMENT PROGRAM IMPACT

This study explored the effects, for four age/sex cohorts, of unemployment insurance (UI) benefits on the expected

duration of unemployment and on the expected post-unemployment wage, which were regarded as interdependent.

The receipt of UI benefits significantly raised the duration of unemployment. Age did not materially affect duration of unemployment, but did decrease the number of weeks out of the labor force. Generally, UI benefits lowered the duration out of the labor force. Race and marital status did not influence wage gains. For young individuals, UI benefits had no effect on post-unemployment wages. Preunemployment wages had consistently negative and statistically significant effects on percentage wage gains for all four age/sex cohorts. Education always exhibited a positive and usually statistically significant effect on the post-unemployment wage and time spent out of the labor force. Labor market variables had mixed effects. The local unemployment rate increased the duration of unemployment, but had no effect on post-unemployment wages or on time out of the labor force.

It was recommended that further research be done with alternative data sources on young workers, who did not follow the job search models as expected.

NTIS PB256255/AS; PRICE CODE: A06; 105 PAGES

3-087 EFFECT OF THE UI SYSTEM ON LABOR FORCE BEHAVIOR

Daniel S. Hamermesh
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East Lansing, Mich.

Purchase order B-9-M-6-4672

January 1978

Descriptors: DURATION OF UNEMPLOYMENT; UNEMPLOYMENT INSURANCE; WOMEN; LABOR FORCE PARTICIPATION; GOVERNMENT PROGRAM IMPACT

This study developed and tested a theoretical model of the effects of unemployment insurance benefits on labor supply. While much previous work examined effects on the duration of spells of unemployment, none considered the likely inducements given to increased participation in the labor force.

The first part of this study modeled this phenomenon and tested the effects on Standard Metropolitan Statistical Area data for married women. Significant effects of qualifying earnings requirements and potential duration of benefits were found.

The second part tested a similar model on microeconomic data for married women in 1971. The results showed that the net effects on employment of increasing benefit amount and duration were small and negative, but that such changes did increase both the size of the labor force and the number of unemployed workers significantly.

NTIS PB284474/AS; PRICE CODE: A03; 46 PAGES

3-088 DISTRIBUTION OF UI BENEFITS AND COSTS

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Contract J-9-M-6-0098

March 1978

Descriptors: UNEMPLOYMENT INSURANCE; ECONOMIC ANALYSIS AND ECONOMETRICS; LABOR MARKET AREAS; COST-BENEFIT ANALYSIS; INCOME

This study estimated the distribution of unemployment insurance (UI) benefits and costs by family income class, as of 1970.

The major conclusion was that the distribution of benefits was regressive. The sensitivity of this conclusion to a variety of assumptions was tested. Analyses of the distribution of UI benefits within regions was conducted, as were analyses of the extent to which high (low) income groups have characteristics which tend to weight benefits in their favor. The extent to which the distribution of benefits was sensitive to incremental changes in UI system parameters, including several changes recently made, was considered.

Estimates of the distribution of net UI benefits (benefits minus costs) were also presented. These estimates required assumptions about the incidence of the UI tax. Attempts were made to test these assumptions by econometric estimation of the impact of the UI system on occupational demand and supply curves, but these results did not permit unambiguous interpretation.

The appendix includes equations which underlie the estimates of the incidence of the payroll tax found in the text of the report. Estimates of multiple input CES production functions for 31 industries are presented.

NTIS PB281614/AS; PRICE CODE: A12; 261 PAGES

MULTI-FACTOR CES DEMAND EQUATIONS: APPENDIX C TO THE DISTRIBUTION OF UI BENEFITS AND COSTS

NTIS PB291380/AS; PRICE CODE: A04; 61 PAGES

3-089 THE UNEMPLOYMENT INSURANCE TAX AND LABOR TURNOVER: AN EMPIRICAL ANALYSIS

Frank Brechling and Christopher Jehn
Center for Naval Analyses
Arlington, Va.

Contract J-9-M-6-0103

April 1978

Descriptors: UNEMPLOYMENT INSURANCE; LABOR FORCE BEHAVIOR; TURNOVER; LABOR ECONOMICS; TAXES; STATISTICAL ANALYSIS; EMPLOYMENT

This paper analyzes the theoretical predictions of unemployment insurance tax and labor turnover. The tax cost of labor turnover which operates through the taxable payroll is analyzed in detail. The disincentives to labor turnover which operate through the tax rate are described. The data used in the analysis are from 17 separate industry samples—one for the total manufacturing industry and 16 for 2-digit manufacturing industries. Each sample consists of a panel of time-series and cross-section observations. The time-series are annual for the period 1962-69 and the cross-sections refer to the States.

Empirical results support the theoretical rather well. They indicate that the labor turnover categories, especially the voluntary quits, tend to be related nonlinearly to the

taxable wage base. The empirical estimates of this relationship suggest that labor turnover reaches a minimum when the taxable wage base is approximately one-half of annual earnings. Moreover, labor turnover, especially layoffs, is very responsive to changes in the degree of experience rating in the tax structure—particularly for those employers whose employees receive large total unemployment benefits.

NTIS PB283340/AS; PRICE CODE: A03; 28 PAGES

3-090 THE TAX BASE OF THE U.S. UNEMPLOYMENT INSURANCE TAX: AN EMPIRICAL ANALYSIS

Frank Brechling
Center for Naval Analyses
Arlington, Va.

Contract J-9-M-6-0103

May 1978

Descriptors: UNEMPLOYMENT INSURANCE; TURNOVER; LABOR FORCE BEHAVIOR; WAGES; ECONOMIC ANALYSIS AND ECONOMETRICS

This paper analyzes the taxable payroll (i.e., tax base) of the unemployment insurance tax both theoretically and empirically. The formula for the taxable payroll implies a marginal tax cost of labor turnover which is a nonlinear function of the taxable wage base and which reaches a maximum when the taxable wage base is equal to one-half of annual earnings.

The empirical analysis suggests: (1) The formulas for the taxable payroll in the equations presented in the report are adequate in the sense that they yield fairly good predictions. (2) The labor turnover rate is a significant determinant of the taxable payroll in that the tax implies a cost of labor turnover. (3) The marginal tax cost of labor turnover is a nonlinear function of the taxable wage base. The analysis shows that the taxable payroll per employment position can be increased by raising annual earnings or labor turnover. It is concluded that the employment tax credit may suffer from serious flaws.

NTIS PB283339/AS; PRICE CODE: A03; 23 PAGES

3F. PENSIONS

3-091 CHANGES IN PENSION BENEFITS AND THE TIMING OF RETIREMENT

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Contract J-9-M-5-0054

December 1975

Descriptors: GOVERNMENT PROGRAM IMPACT; EMPLOYEE RETIREMENT INCOME SECURITY ACT (ERISA); RETIREMENT; PENSIONS; AGE DIFFERENCES

The research underlying this paper developed and estimated a model of the retirement decision for use in estimating the effect of the Employee Retirement Income Security

Act (ERISA) on the retirement age chosen by covered individuals. Using a simple theory of the retirement decision as a guide, the estimating equation was applied to data from the 1971 National Longitudinal Survey of Older Men, thus permitting quantitative inferences about early retirement that were impossible from three earlier studies that were reviewed.

The analysis employed data for some 900 men, aged 50 to 59 in 1971, who were family heads (excluding farmworkers, those who planned to work until they reached 72, who were unemployed in 1971, or who earned less than \$3,000 in 1970). Their answers to the question, "At what age do you expect to retire from your current job?" were the dependent variable in the model. The independent variables consisted of their answers to some 20 other questions concerning such matters as finances, pension coverage, health, job attitudes, and sociodemographic characteristics of self and family members.

The results implied that ERISA would have almost no impact on the existing trend toward earlier retirement. The estimating equation "explained" 39.5 percent of the variation in intended age of retirement, but a hypothetical increase of \$100 a month in potential pension income—much more than could result under ERISA—was associated with less than a 3-month reduction in the average expected retirement age. But the results must be interpreted with caution, for the data related to anticipated—not actual—retirement age and lacked any estimates of expected social security benefits.

NTIS PB256267/AS; PRICE CODE: A04; 69 PAGES

3-092 THE VALUE OF DEFINED BENEFIT PENSION PLANS: A TEST OF THE EQUALIZING DIFFERENCES HYPOTHESIS

Randall D. Weiss and Bradley R. Schiller
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College Park, Md.

Contract J-9-M-5-0038

April 1976

Descriptors: RETIREMENT; PENSIONS; WAGES; FRINGE BENEFITS

This study focused on the implicit rate of substitution of private pension benefits for current wages. The properties of competitive equilibrium in labor markets in which compensation consists of current wages and deferred wages were reviewed. It was demonstrated that the annual cost of a pension plan depends on its various provisions including vesting, early retirement, normal retirement, and benefits.

Data on earnings of workers and on the attributes of their pension plans from the U.S. Department of Labor's file on private pension plans and social security earnings records were used to test the equalizing differences hypothesis.

The results provided mild support for this hypothesis, and further research was advocated.

NTIS PB264076/AS; PRICE CODE: A03; 40 PAGES

3-093 THE ECONOMIC EFFECTS DUE TO INCREASED CERTITUDE OF RETIREMENT INCOME ON LABOR FORCE PARTICIPATION

William J. Haley
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East Lansing, Mich.

Contract J-9-M-5-0039

September 1976

Descriptors: ECONOMIC ANALYSIS AND ECONOMETRICS; MODELS; LABOR FORCE PARTICIPATION; WAGES; PENSIONS

This report specifies a well-posed theoretical model of individual behavior that would allow economic response to pension funds and the resulting alternatives. This model allows for individual choice of allocation of savings between pension and nonpension assets. It also allows for the existence of 100 percent participation by the employer. The probability of the pension fund failing is included in the model. The model assumes utility maximization in which the individual makes both the labor-leisure choice and the retirement decision endogenously. The major shortcoming of this model is that the wage rate is exogenous. It is now well-known that the wage rate is determined endogenously as a result of human capital accumulation decisions. Unfortunately, this aspect of individual behavior is not incorporated into the model.

The next logical step in this investigation is to specify particular utility functions, bequest function, and the savings frontier, and do the necessary analysis to deduce comparative dynamic results. These theoretical results must be empirically tested. There are now several data bases containing information on pensions, retirement, and savings as well as on labor force participation and compensation. The model posed in this paper should prove a fruitful framework within which all of these specific aspects of individual behavior can be investigated simultaneously.

NTIS PB280293/AS; PRICE CODE: A03; 36 PAGES

3-094 THE COSTS OF DEFINED BENEFIT PENSION PLANS AND FIRM ADJUSTMENTS

Burt S. Barnow and Ronald G. Ehrenberg
U.S. Department of Labor/ASPER
Washington, D.C.

April 1977

Descriptors: RETIREMENT; PENSIONS; EMPLOYEE RETIREMENT INCOME SECURITY ACT (ERISA); GOVERNMENT PROGRAM IMPACT

This study explored variations in the employer's cost of full funding due to the age and service characteristics of his workforce. The costs of defined benefit plans were computed for individual workers, because rational employers should be interested in the individual costs for hiring and retention decisions; the economic costs during each period of time were calculated without regard to the timing of the actual funding. Models of the determinants of a firm's net pension liability per employee per period were developed for some of the most common forms of defined benefit plans. These costs not only varied by age and years of service but provided a measure of the sensitivity of the conclusions to variations in the parameters of the pension plans.

The results indicated that employers' net pension contributions per employee would in general increase, both in absolute terms and as a percentage of the employees' salaries, with the employees' ages and years of service. Because pension costs are proportionally higher for older workers in each type of plan, firms have an incentive to alter their employees' age-earnings profiles and to encourage labor turnover. Any evaluation of the impact of union negotiated or legislated improvements in pension benefits must attempt to measure the magnitude of these market adjustments. Preventing labor market adjustments requires alternatives to defined benefit pension schemes.

Defined contribution schemes, in which the employer contributes a fixed percentage of each employee's earnings, were clearly age-neutral. However, such schemes promise employees a fixed contribution rate, not a fixed benefit rate, and increase their uncertainty about future benefits. This may explain the relative unpopularity of defined contribution schemes in the United States. One might conjecture, though, that the passage of the Employee Retirement Income Security Act of 1974 (ERISA) and its requirements for funding may encourage the spread of these plans.

NTIS PB267712/AS; PRICE CODE: A03; 34 PAGES

4A. SOURCES AND USE OF INFORMATION

4-001 DATA, EVALUATION, AND MANAGEMENT IN
MANPOWER TRAINING PROGRAMS

Stanley A. Horowitz and Arlene Holen
Center for Naval Analyses
Arlington, Va.

Contract L-72-86

March 1973

Descriptors: EMPLOYMENT AND TRAINING SERVICES
INFORMATION; EMPLOYMENT AND TRAINING PROGRAM
MANAGEMENT; DATA SOURCES AND USE; INFORMATION
SYSTEMS; METHODOLOGY

This study examined the data on which local program-management decisions in employment and training programs are based, the way the data are used, and how the process might be improved. The data included Management Information Reports (OFMIS), Quarterly Review and Analysis Reports (OPER), Operation Planning and Control System Reports (OPCS), and Regional Automation Projects, which are available to the Regional Offices, Cooperative Area Manpower Planning Systems (CAMPS) groups, and national decisionmakers. Despite difficulties in interpreting the data (such as completion and early termination rates). Changes in reporting format caused by Manpower Revenue Sharing may make the information system more useful for evaluation purposes. Evaluative data lagged far behind (in terms of support, coverage, systematic presentation, and departmental awareness) those used for control and monitoring of activities. Other recommended improvements included data on resource use intensity, greater order and accessibility to the present OFMIS data complex, improvement of coverage and compilation, the use of two-stage least squares to estimate the structural equations and isolate the determinants of program success for comparison with actual measures and determination of costs, and continuous gathering of and periodic reestimation of functions.

NTIS PB253635/AS; PRICE CODE: A02; 22 PAGES

4-002 MANPOWER PROGRAM FOLLOW-UP SYSTEMS

William Morsch
Columbia Research Associates
Cambridge, Mass.

Purchase order 73-2411

April 1973

Descriptors: EMPLOYMENT AND TRAINING PROGRAM
MANAGEMENT; ASSESSMENT AND EVALUATION;
METHODOLOGY; INFORMATION SYSTEMS

This study addressed the problems in designing and implementing a followup system of participants in employment and training programs. First, it reviewed the present Management Information Systems (MIS), which do not track program enrollees for a long enough period after leaving the program. Some alternative designs of followup systems, their organizational implications and costs, were then presented.

Based on considerations of cost and timeliness, a "constant reliability" model for followup was recommended.

However, improved performance of the followup system at a much lower cost might be possible with a "profile" model, if further research should establish the feasibility of that alternative. A "reference group" was suggested instead of a control group for comparison purposes, because of the probable differences in motivation and other factors between control group members and enrollees.

NTIS PB256301/AS; PRICE CODE: A03; 46 PAGES

4-003 ECONOMIC CONSIDERATIONS FOR
MANPOWER REVENUE SHARING

Daniel S. Hamermesh and Hugh M. Pitcher
Princeton University
Princeton, N.J.

July 1973

Descriptors: REVENUE SHARING; ECONOMIC ANALYSIS AND
ECONOMETRICS; FEDERAL FUNDING; EMPLOYMENT AND
TRAINING PROGRAMS; STATE AND LOCAL GOVERNMENTS;
METHODOLOGY

This study derived a set of formulas for the allocation of Federal expenditures under employment and training revenue sharing. Unlike formulas embodied in recent legislative proposals, those derived here have a solid basis in theory and make clear the goals they envision for employment and training programs. The authors evaluated their own proposals and others in terms of the actual allocations that would have existed based upon 1970 census data.

The preliminary results suggested that, on the average, this study's formulas would provide somewhat more money for the central cities and less for the suburbs than would the workforce/unemployment/poverty formulas embodied in other proposals. Since these formulas are based on economic theory, the results suggested the desirability of their use in the actual allocation of funds.

Certain aspects of the formulas should be included in any final result. The need for recognizing that there is a net flow of workers into the central cities from the suburban ring suggests that all factors in the revenue sharing formulas should be modified. The use of a multiplicative factor is needed for the cities to overcome this problem. The use of the squared unemployment rate is essential both as a way of reflecting differences in opportunity costs and as a way of accounting for different communities' ability to finance expenditures themselves. The major problem is to insure access to adequate data for updating the formulas. One essential is improving the collection of unemployment data at both State and local levels to provide more detailed annual breakdowns of the unemployed by occupation.

NTIS PB278998/AS; PRICE CODE: A02; 34 PAGES

4-004 JOB MATCHING UNDER IMPERFECT
INFORMATION

Dale T. Mortensen
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Purchase order 73-3654

October 1973

Descriptors: WAGE DIFFERENTIALS; ASSESSMENT AND EVALUATION; ECONOMIC ANALYSIS AND ECONOMETRICS; PUBLIC EMPLOYMENT SERVICE; GOVERNMENT PROGRAM IMPACT; WORKER/JOB MATCHING; INFORMATION SYSTEMS

The purpose of this paper was to conceptualize the benefits that might be attributable to government policies designed to improve the match of jobs and workers. By taking into account the imperfections in job search information available to both employers and workers, the approach differed from the classical approach to resource allocation, which assumes the availability of perfect information. Charles Holt's suggestions on reducing the equilibrium unemployment rate were reviewed to determine the probable benefits. A mathematical model of the labor market was developed.

It was shown that random search, together with the way in which employers and workers set reservation wage rates, determines the distribution of wage rates paid. Wage rates were considered to be the optimal signals for determining the number of jobs and workers in the market. Wage rate differentials between employers and workers were shown to be unpredictable. The empirical implications of the theory of wage dispersion were explored.

Three alternative ways to improve matching activity were discussed: (1) The knowledge of traders about the distribution of wages might be improved by posting or publishing samples of actual wage rates and benefits pertinent to each job category. (2) More and better information about the nature of specific jobs could be provided to employers. (3) The structure of the market could be changed by either reducing the number of labor exchanges or by having them specialize in fewer job categories.

NTIS PB256302/AS; PRICE CODE: A05; 90 PAGES

4-005 PROGRESS REPORT ON THE DEVELOPMENT OF CONTINUOUS PERFORMANCE INFORMATION ON THE IMPACT OF THE MANPOWER DEVELOPMENT AND TRAINING ACT

Orley Ashenfelter
U.S. Department of Labor/ASPER
Washington, D.C.

October 1973

Descriptors: EMPLOYMENT AND TRAINING POLICY; INFORMATION SYSTEMS; RETURNS ON TRAINING; METHODOLOGY

This study described progress during the first 2 years of development, by the Office of the Assistant Secretary for Policy, Evaluation and Research (ASPER), of a continuous system for monitoring the impact of Manpower Development and Training Act (MDTA) training on trainee earnings. The basic system rests on matching: (1) Data on the characteristics of trainees from the information maintained by the Office of Management Information Systems in the Manpower Administration; and (2) information from the earnings records of the Social Security Administration. The original results obtained in 1972 from these data for the class of 1964 were described. These preliminary results were based on faulty methodology; therefore, improved re-

sults were also presented. Further ASPER plans for analysis were outlined.

It was found that the earnings of institutional trainees declined relative to the earnings of the comparison group during 1964, when the enrollees were in training. The average earnings of all 1964 MDTA trainee groups were higher than they otherwise would have been over the period 1965-69. The effects of training on average earnings varied with the race and sex of the trainee and the type of training program. Preliminary calculations from more recent years suggested that similar results may be obtained. The effects of training on earnings were largest in the year immediately after training and tended to decline thereafter. The study also extended the analysis of MDTA trainees to later years and analyzed the effects of the Work Incentive program, the Job Corps, and the Neighborhood Youth Corps.

NTIS PB268929/AS; PRICE CODE: A02; 23 PAGES

4-006 USEFULNESS OF THE PARNES DATA FOR ANALYSES OF THE U.I. SYSTEM

Sue Ross
Center for Naval Analyses
Arlington, Va.

Contract L-72-86

June 1974

Descriptors: NATIONAL LONGITUDINAL SURVEYS; UNEMPLOYMENT INSURANCE; ASSESSMENT AND EVALUATION; MEN; DATA SOURCES AND USE

This study checked the validity of using the first four annual surveys of the National Longitudinal Survey of Work Experience of Mature Men (NLS—commonly known as the Parnes Survey) for analyses of the unemployment insurance system.

The data provided some measures of individual characteristics not available from other sources, but the four surveys were not entirely comparable, particularly because of differences in interview method. Earlier concerns about lack of usable samples due to expected low incidence of unemployment in the age group, however, were found to be unnecessary. Familiarity with the data is expected to lead to further and more efficient applications of the results.

NTIS PB253633/AS; PRICE CODE: A02; 11 PAGES

4-007 AN EVALUATION OF THE ADEQUACY OF EXISTING DATA SOURCES FOR RESEARCH ON THE UNEMPLOYMENT INSURANCE SYSTEM AND REFLECTIONS ON PROPOSED NEW DATA COLLECTION EFFORTS

Ronald G. Ehrenberg
Cornell University
Ithaca, N.Y.

Purchase order B-9-M-5-3192

August 1975

Descriptors: DATA SOURCES AND USE; JOB SEARCH; INCOME MAINTENANCE; UNEMPLOYMENT BENEFIT EXHAUSTEES

To evaluate the Unemployment Insurance (UI) system, this study explored the adequacy of existing data on the

behavior of both the individual and the firm with respect to four policy issues (job search-work disincentive, income-maintenance-distribution, exhaustion of benefits, and the UI tax). It described the characteristics of an ideal data set for each purpose.

The merits of the U.S. Department of Labor's funding of a national longitudinal sample of unemployment insurance beneficiaries were examined and recommendations given for the implementation of the survey. It was suggested that the survey be supplemented by an unemployment insurance experiment to ascertain the appropriateness of the data.

No one data set was deemed sufficient for all purposes for which it is desirable to collect information. It was also demonstrated how several existing microdata files could, in principle, be merged and used to increase understanding of the impact of the UI system on firm behavior.

NTIS PB256278/AS; PRICE CODE: A03; 26 PAGES

4-008 THE CENSUS OCCUPATIONAL TAXONOMY: HOW MUCH INFORMATION DOES IT CONTAIN?

*Finis Welch
The Rand Corporation
Santa Monica, Calif.*

Contract L-74-88

September 1975

Descriptors: DATA SOURCES AND USE; INFORMATION SYSTEMS; OCCUPATIONAL CLASSIFICATION

This research focused on the efficiency of the 298 Census occupational classification codes as a means of conveying information. It assumed that each classification was fully described by its wage rate, and used the average weekly wage or its variance as the measure of information conveyed by the 298 codes.

The initial analysis indicated that only 18 of the 298 codes contained more than 1 percent of the observations recorded in the 1/100 public use samples of white males in the 1960 and 1970 censuses, when the data were adjusted to exclude the self-employed and to allow for the effects on wages of years of work experience. Therefore, it adopted a quadratic function as a measure of the information lost through aggregation.

Using nine aggregates (not the occupational group aggregates used by the Census Bureau), preserved 98 percent of the initial wage variance. Aggregation to just two groups preserved over half. Therefore, it was concluded that if the census detail were viewed in terms of its ability to convey wage information, the data were "extraordinarily inefficient." The potential for learning from this information—for example, through analysis of such phenomena as socioeconomic status, measures of job amenities, and the efficiency of worker utilization—thus is limited by the quality of the original data.

NTIS PB254939/AS; PRICE CODE: A02; 25 PAGES

4-009 THE CURRENT POPULATION SURVEY AND UNEMPLOYMENT INSURANCE

*Kathleen Classen
Center for Naval Analyses
Arlington, Va.*

Purchase order B-9-M-5-2629

December 1975

Descriptors: PLANNING, RESEARCH, AND DEVELOPMENT; UNEMPLOYMENT INSURANCE; DATA SOURCES AND USE; FAMILIES

This study evaluated the usefulness of the Current Population Survey (CPS) in investigating the impact of unemployment and unemployment insurance (UI) on the family unit.

Although the monthly CPS provides information about the income and labor force participation of members, and each March contains information about UI, it was judged unsuitable for UI research. The CPS could be improved, but because of the problem of obtaining accurate survey responses with respect to UI, which are crucial in any UI research, other options should be pursued. Appending family information to the accurate records maintained by the State systems was advanced as an alternative.

NTIS PB263076/AS; PRICE CODE: A03; 26 PAGES

4-010 THE ARIZONA CWBH PROJECT

*Kathleen Classen
Center for Naval Analyses
Arlington, Va.*

Contract L-72-86

January 1976

Descriptors: UNEMPLOYMENT INSURANCE; DURATION OF UNEMPLOYMENT; DATA SOURCES AND USE; GOVERNMENT PROGRAM IMPACT

This paper reports on the progress of the Arizona Continuous Wage and Benefit History (CWBH) in measuring the incentive effects of unemployment insurance. The data for several years have been merged and a sample of claimant records has been reduced to a fixed format for regression analysis. The results of the preliminary work bear a striking similarity to findings in an earlier study of Pennsylvania claimants. The Arizona data, however, are much more detailed than the Pennsylvania CWBH. Although preliminary analysis indicates that differences in the population may be important in predicting the response to increases in the weekly benefit amount, the full potential of these data has only begun to be tapped.

NTIS PB281709/AS; PRICE CODE: A03; 36 PAGES

4-011 UNIFORM DATA SYSTEMS AND RELATED PROBLEMS IN WORKERS' COMPENSATION

*Monroe Berkowitz
Rutgers University
New Brunswick, N.J.*

Contract L-74-184

April 1976

Descriptors: WORKERS' COMPENSATION; INFORMATION SYSTEMS; STATE AND LOCAL GOVERNMENTS

This study developed a model data system (MDS) for evaluating workers' compensation cases that would produce

4A. SOURCES AND USE OF INFORMATION

comparable data from all jurisdictions and minimize changes in the existing system. Ideally, a model should account for the current status of each and every accident and exposure from the initial event to the final disposition. The MDS method for obtaining comparable data entailed a set of cases that have reached a uniformly defined status and was based on closed cases, where "closed" refers to cases for which an agreement, settlement, decision, or compromise has been reached during the calendar year of the report, rather than those for which the accident or exposure occurred in the calendar year.

The report specified the type and frequency of inputs and the changes that have to be made if States are to produce essential outputs on a uniform basis and have the capability of producing other outputs to meet single-time needs. The input report forms—the basic building blocks of the MDS—were the Employer's First Report, a Notice of Start of Payments, a Subsequent Activity Form, a Notice of End of Payments, and a Physician's Report. The MDS included a management information system for the adjudication of controverted cases and a carrier performance measure in the form of a promptness of payment report. A rough estimate of operating costs of the MDS suggested that they would amount to no more than one-half of 1 percent of the total amount paid out in benefits per annum.

NTIS PB262970/AS; PRICE CODE: A13; 283 PAGES

4-012 ON THE PROBLEMS OF MISSING MEASUREMENTS IN THE ESTIMATION OF ECONOMIC RELATIONSHIPS

Jan Kmenta
University of Michigan
Ann Arbor, Mich.

Purchase order B-9-M-6-1057

January 1977

Descriptors: ECONOMIC ANALYSIS AND ECONOMETRICS; STATISTICAL ANALYSIS; STATISTICAL SAMPLES; EXPERIMENTAL DESIGN; METHODOLOGY

This report deals with the problem of estimating the parameters of economic relationships when some of the observations are incomplete but the sample selection rules are not violated. The models considered include classical multiple regression, generalized regression (with special attention to autoregressive disturbances and seemingly unrelated regressions), and recursive systems. In each case, it examines the possibility of extracting information from observations with missing measurements and then analyzes suitable estimation methods.

NTIS PB278929/AS; PRICE CODE: A03; 33 PAGES

4-013 USE OF SOCIAL SECURITY DATA FOR ANALYSIS OF OCCUPATIONAL DISEASE

William Morsch
Westat, Inc.
Rockville, Md.

Purchase order B-9-M-8-1255

July 1978

Descriptors: OCCUPATIONAL SAFETY AND HEALTH; DATA SOURCES AND USE; METHODOLOGY

This paper reviews the potential for using available data sources—especially those of the Social Security Administration—to study the issues associated with occupational diseases. It also examines past approaches to this subject.

Since no techniques are at present available for identifying classes of occupational disease not yet recognized by medical science, it is often difficult to establish a link between disease and the workplace.

Two issues to be examined, either with new data or new use of available data, are: (1) The prevention or reduction of occupational diseases; and (2) the costs of occupational diseases.

A comprehensive approach is described to address the problems of identifying occupational disease situations. It is recommended that a continuing program of 100-percent examination of occupationally caused disability be conducted using the Social Security data.

NTIS PB284655/AS; PRICE CODE: A04; 72 PAGES

4-014 PENNSYLVANIA CONTINUOUS WAGE AND BENEFIT HISTORY CODE BOOK

Louis S. Jacobson and Kathleen Classen
Center for Naval Analyses
Arlington, Va.

Contract J-9-M-7-0020

August 1978

Descriptors: DATA SOURCES AND USE; INFORMATION SYSTEMS; UNEMPLOYMENT INSURANCE; LONGITUDINAL SURVEYS; EMPLOYMENT; UNEMPLOYMENT

This report documents the Public Use Version of the Continuous Wage and Benefit History Tapes for Pennsylvania. The CWBH is drawn from administrative records maintained by the Pennsylvania Bureau of Employment Security. This data base contains detailed longitudinal histories of both the employment and unemployment experience of 0.6 percent of the workers who claimed unemployment insurance (UI) benefits in Pennsylvania from 1966 to 1968. Work histories describe employment and earnings for 1967-70. Claim histories describe the benefits paid for claims established in 1966-68. Over 4,000 workers are included in the file.

The data are contained on one reel of magnetic tape. The data tape is 9 track, EDCBIC, 1600 bpi, with standard labels suitable for use with IBM and most other computers.

NTIS PB289910/AS; PRICE CODE: A03; 26 PAGES

4-015 ARIZONA EMPLOYMENT AND UNEMPLOYMENT DATA CODE BOOK

Louis S. Jacobson and Kathleen Classen
Center for Naval Analyses
Arlington, Va.

Contract J-9-M-7-0020

August 1978

Descriptors: UNEMPLOYMENT; UNEMPLOYMENT INSURANCE; EMPLOYMENT; LONGITUDINAL SURVEYS; DATA SOURCES AND USE; WORK SAMPLING

This report is the documentation of Public Use Version of the Continuous Wage and Benefit History (CWBH) tapes. The Arizona Employment and Unemployment Data Set (AZEUD) is made up of information drawn from administrative records of government agencies in two separate samples: (1) A 20-percent sample of workers who applied for unemployment insurance (UI) in Arizona from 1963 to 1971, and (2) 1-percent sample of the Arizona labor force from 1957 to 1972. The 20-percent sample is drawn from the Continuous Wage and Benefit History (CWBH) data maintained by the Arizona Bureau of Employment Security. This data base contains detailed longitudinal histories of both the employment and unemployment experience of workers who claimed UI benefits in Arizona from 1963 to 1971. About 40,000 workers are included in the file. The 1-percent sample is derived from the Social Security Administration's Longitudinal Employee-Employer Data (LEED) file. The data base contains detailed longitudinal histories of the employment experience of workers covered by Social Security employed in Arizona from 1957 to 1973. There is no explicit indicator of whether or not workers in this sample claimed unemployment insurance. About 25,000 workers are included in this file. The data are contained on two reels of magnetic tape. The data tapes are 9 track, EDCBIC, 1600 bpi, with standard labels suitable for use with IBM and most other computers.

NTIS PB291002/AS; PRICE CODE: A04; 68 PAGES

4-016 PRELIMINARY EVALUATION OF MIS FOR CETA

Vincent Geraci
University of Texas
Austin, Tex.

Purchase order B-9-D-8-4208

September 1978

Descriptors: CETA PROGRAMS; INFORMATION SYSTEMS; ASSESSMENT AND EVALUATION; DATA SOURCES AND USE

This study was a preliminary evaluation of the Management Information System (MIS) that links prime sponsors of programs under the Comprehensive Employment and Training Act (CETA) to the national office of the Department of Labor (DOL). It explored the purposes of MIS, its present capability, and changes in the system aimed at improved future information collection, processing and use, relating the multiplicity of management levels, goals, and instruments in CETA to information needs for decisionmaking.

Specific goal-instrument examples demonstrated that a series of measurement uses must be resolved in order that CETA client, program activity, and outcome data provide appropriate performance indicators. The study concluded with broad recommendations for further research by DOL.

NTIS PB287333/AS; PRICE CODE: A02; 16 PAGES

4-017 THE POTENTIAL FOR PLANNED EXPERIMENTATION IN THE DOL REGULATORY AREA

Stanley Masters
University of Wisconsin
Madison, Wis.

Contract J-9-M-7-0153

October 1978

Descriptors: GOVERNMENT POLICIES; FEASIBILITY STUDY; EXPERIMENTAL DESIGN

This study provided information on the feasibility of experiments to assess the effects of possible changes in three regulatory programs of the Department of Labor—Occupational Safety and Health Act, Employee Retirement Income Security Act, Office of Federal Contract Compliance. The approach focused on: (1) Identifying specific policy questions, and (2) examining important design issues that would need to be addressed if any of these experiments were undertaken.

It was found that there was considerable but fragmented interest in experimentation with regard to these regulatory programs. Topics in each area that appeared to be promising candidates for experimentation included variations in targeting strategies, inspection probabilities, reporting and disclosure requirements, and financial incentives for good performance.

The next step is for the Department of Labor to design and implement pilot experiments on any of the specific topics for which it decides experimental research is warranted.

NTIS PB291372/AS; PRICE CODE: A05; 95 PAGES

4-018 ECONOMETRIC MEASUREMENT OF THE EFFECTS OF REGULATION

Robert D. Gordon
University of Chicago
Chicago, Ill.

Contract J-9-J-6-0062

December 1978

Descriptors: ECONOMIC ANALYSIS AND ECONOMETRICS; METHODOLOGY; INFORMATION SYSTEMS; MANAGEMENT PLANNING

This report deals with alternative approaches to decision-making under conditions of limited or inadequate information. A decisionmaker faces a choice among several alternative actions or solutions to a problem, where little or no direct sample data are available. Typical problems of this type are the decisions to market a new product or to modify the regulations governing an industry. The consequences of these choices are summarized through a model that depends on a set of parameters with unknown values.

This report discusses two general solutions to such problems: (1) Conducting a survey to supplement existing information in order to develop precise estimates for the unknown parameters, and (2) combining information from a variety of secondary sources to form subjective prior distributions for the unknown parameters.

NTIS PB291246/AS; PRICE CODE: A05; 93 PAGES

4-019 THE JOBS MICROSIMULATION MODEL OF EMPLOYMENT-RELATED WELFARE REFORM PROGRAMS: ANALYST AND PROGRAMMER DOCUMENTATION

*Dianne Hollenbeck and Jodie Allen
Mathematica Policy Research
Washington, D.C.*

Contract J-9-M-7-0043

February 1979

Descriptors: JOB OPPORTUNITIES IN THE BUSINESS SECTOR (JOBS); SIMULATION; ECONOMIC MODELS; COMPUTER SYSTEMS; INFORMATION SYSTEMS

The JOBS microsimulation model is fully described and the technical details of its operation are documented in this report. Two separate documentations are provided. The analyst documentation is designed to be used as a manual for the operation of the model by a technical analyst. The programmer documentation is designed to be used as a manual for the computer programmer for the operation of the JOBS computer program. For the analyst documentation, a knowledge of the MATH model is assumed, as the documentation is designed to be a part of the *MATH Technical Description* package. The programmer documentation is designed to be part of the *MATH User's Guide* and assumes knowledge of the MATH model.

NTIS PB293533/AS; PRICE CODE: A11; 242 PAGES

4B. EVALUATION METHODOLOGY

4-020 EVALUATING THE IMPACT OF MANPOWER PROGRAMS

*Michael E. Borus
Ohio State University Research Foundation
Columbus, Ohio*

Contract L-71-72

September 1971

Descriptors: CONFERENCES; EMPLOYMENT AND TRAINING PROGRAMS; METHODOLOGY; PLANNING, RESEARCH, AND DEVELOPMENT; STATE-OF-THE-ART PAPERS

This report contains the papers presented at a 1971 conference on the evaluation of manpower programs. Some 20 papers deal with various aspects of 7 topics: (1) Designing an evaluation system; (2) the choice of appropriate control groups; (3) designing survey instruments; (4) measuring the noneconomic impacts (on health, education, crime, and the community) of manpower programs; (5) finding the hard-to-locate; (6) sources of economic data in manpower evaluation studies; and (7) measuring secondary labor market effects of manpower programs.

NTIS PB253515/AS; PRICE CODE: A18; 416 PAGES

4-021 THE UNITED STATES EMPLOYMENT SERVICE: A SURVEY OF RESEARCH AND EVALUATION NEEDS

*Center for Naval Analyses
Arlington, Va.*

Contract L-72-86

August 1972

Descriptors: COST-BENEFIT ANALYSIS; JOB SEARCH; PUBLIC EMPLOYMENT SERVICE; INFORMATION SYSTEMS

This study addressed the conceptual and measurement problems of isolating and evaluating the labor exchange function of the U.S. Employment Service (ES).

It was concluded that current data do not permit comparison of the cost effectiveness of the ES for a given type of worker compared with alternative job search methods because the available data do not show the intensity of use of the various methods, the determinants of use of search methods, and the quality of placements associated with the different methods, or permit the elimination of intercorrelations caused by demographic variables.

The Employment Service Automated Reporting System (ESARS) and its role in comparing State performance with objectives were discussed, as well as the problems that remain in evaluating detected divergences, and the variations in Plans of Service planning factors. Statistical techniques (which need refinement) were used to establish expected productivity ratios by State.

NTIS PB257065/AS; PRICE CODE: A05; 76 PAGES

4-022 THE USE OF LONGITUDINAL DATA TO ASSESS THE IMPACT OF MANPOWER TRAINING ON EARNINGS

*Louis S. Jacobson
Center for Naval Analyses
Arlington, Va.*

Contract L-72-86

July 1973

Descriptors: RETURNS ON TRAINING; EMPLOYMENT AND TRAINING PROGRAM MANAGEMENT; MANAGEMENT; EARNINGS

This study reviewed research using Social Security data to measure the effect of government training programs on the earnings of participants. Social Security's Continuous Work History Sample (CWHHS) was used to demonstrate that prior studies have substantially underestimated the impact of training on earnings. Those studies employed a model of income determination that did not take account of trainees, being induced to join the program because of difficulty in finding or holding adequate jobs.

The basic technique used in this study was to compare actual post-training earnings of trainees with the earnings of a control group whose earnings potential at the time of initiation of training was identical to that of the participants. To compare the two groups, a model of income determination was specified and estimated using regression analysis.

Because it was not possible to identify trainees in the CWHHS or to obtain a reliable measure of unemployment and loss of job tenure in the summary earnings records, the estimation procedure was based on knowledge of the simple correlations among the variables.

NTIS PB253579/AS; PRICE CODE: A03; 46 PAGES

4-023 COST ANALYSIS OF MANPOWER PROGRAMS: AN ANALYSIS OF THE STATE OF THE ART

Kamran Moayed-Dadkhah and Ernst W. Stromsdorfer
Indiana University
Bloomington, Ind.

Purchase order 73-8314

November 1973

Descriptors: LITERATURE REVIEW; COST-BENEFIT ANALYSIS; EMPLOYMENT AND TRAINING PROGRAMS; DATA SOURCES AND USE; METHODOLOGY; PLANNING, RESEARCH, AND DEVELOPMENT

This survey of the literature of cost analysis employed in evaluation studies of employment and training programs revealed that the four issues that analysts found most difficult were: (1) The distinction between capital and variable costs; (2) the conversion of financial data into economic costs; (3) the estimation of cost functions; and (4) the estimation of foregone earnings of trainees. Considerable confusion also existed over the nature and treatment of transfer payments.

It was found that the proper treatment of transfer payments, income and social security taxes, trainee allowances, foregone earnings, or post-training earnings depends on the locus of optimization one is concerned with, but is critical on both efficiency grounds and equity grounds.

The poor quality of some of the earlier studies demonstrated the evolution of cost analysis methodology, the lack of convertibility of Federal accounting data, and the failure of economists to use appropriate methodology and to conceptualize the problem of cost measurement as one wherein costs are related to outputs via a production function.

After exploring the problems encountered in measuring the costs of employment and training programs caused by the nature of the data reporting process itself—problems related to definitions, the administrative process, procedural anomalies, different program institutional contexts, and errors in the data and deviations from reporting procedures—the researchers concluded that some relatively minor standardization of cost and output measures, with considerable disaggregation in reporting, could turn the government's data set into an evaluative component of considerable value.

NTIS PB256337/AS; PRICE CODE: A07; 128 PAGES

4-024 FINAL REPORT OF THE PANEL ON MANPOWER TRAINING EVALUATION: THE USE OF SOCIAL SECURITY EARNINGS DATA FOR ASSESSING THE IMPACT OF MANPOWER TRAINING PROGRAMS

*Assembly of Behavioral and Social Sciences, National Academy
of Science*
Washington, D.C.

Contract L-73-32

January 1974

Descriptors: EMPLOYMENT AND TRAINING PROGRAM MANAGEMENT; DATA SOURCES AND USE; EFFECTIVENESS OF PROGRAMS; METHODOLOGY; RETURNS ON TRAINING

To evaluate the educational or economic effects of government training programs inexpensively, reliably, and cur-

rently, this study proposed use of Social Security Continuous Work History Sample (CWHs) data. It explained the current structure of Social Security data available for evaluation of training programs, compared CWHs data with alternative data sets and discussed the advantages and disadvantages of using the data.

CWHs data were judged to be inexpensive, reliable, and longitudinal; the sample is large; nonresponse is not a problem; and comparison groups are included. However, the study pointed out that the data show earnings rather than wage rates and hours of work, lack detailed information on labor force participation, do not report earnings for those earning above the maximum, vary in coverage as a function of age, have a time lag, cover a limited number of sociodemographic variables, and involve problems with maintaining confidentiality. Nevertheless, the report recommended that CWHs data be more widely used to evaluate manpower training programs, that strict controls be placed to maintain confidentiality of the data, that the Manpower Automated Reporting System (MARS) file be evaluated to determine and reduce nonreporting biases, and that a study be undertaken to determine the validity of Social Security data for manpower program evaluation.

NTIS PB254938/AS; PRICE CODE: A03; 47 PAGES

4-025 EVALUATING THE IMPACT OF CETA PROGRAMS ON PARTICIPANTS' EARNINGS: METHODOLOGICAL ISSUES AND PROBLEMS

George E. Johnson
U.S. Department of Labor/ASPER
Washington, D.C.

January 1975

Descriptors: CETA PROGRAMS; ASSESSMENT AND EVALUATION; GOVERNMENT PROGRAM IMPACT; METHODOLOGY; COST-BENEFIT ANALYSIS

This paper reviews the conceptual issues associated with evaluating the impact of programs under the Comprehensive Employment and Training Act (CETA) of 1973. It explains the concept of net impact, stresses the use of comparison group methodology, and discusses difficulties associated with the identification of the program's net impact. A strategy for estimating relative program impact is also presented. The problem of duration of program effects—an issue that has further implications about the scale of the evaluation effort necessary to determine the efficacy of CETA—is considered. Additional conceptual difficulties in the interpretation of results, apart from the statistical problems and the question of the optimal scale of evaluation effort under CETA, are also discussed.

NTIS PB290389/AS; PRICE CODE: A03; 34 PAGES

4-026 INCOME DISTRIBUTION EFFECTS OF MANPOWER PROGRAMS

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Atlanta, Ga.

Contract L-74-169

April 1975

Descriptors: TRAINING EFFECTIVENESS AND IMPACT;
METHODOLOGY; ASSESSMENT AND EVALUATION

Because of the lack of methodology for equity analysis, this study was limited to a review of existing material in public finance for analyzing the implications of studies of income distributional effects of employment and training programs. The evidence suggested that higher income participants benefit more than lower level participants, and that program benefits are maldistributed among the States.

Next, estimates of short-run impacts of employment and training programs were made by constructing a two-skill level, three-sector theoretical equilibrium economic model, which showed that the programs' transformation of a lower skill level of labor into a higher skill level altered the distribution of income, with trainees benefiting relative to nontrained cohorts, while owners of capital found their returns on all labor increasing.

In addition, both stochastic and behavioral models of intergenerational income distribution and population mobility were considered, showing that a combination of both methodological approaches should lead to improved intergenerational models.

NTIS PB257074/AS; PRICE CODE: A12; 251 PAGES

4-027 EVALUATING THE IMPACT OF OSHA ON OCCUPATIONAL SAFETY AND HEALTH

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April 1975

Descriptors: OCCUPATIONAL SAFETY AND HEALTH;
EFFECTIVENESS OF PROGRAMS; STATE AND LOCAL
GOVERNMENTS; DATA SOURCES AND USE; REGULATIONS

The purposes of this paper are: (1) To achieve agreement on the objectives of the Occupational Safety and Health Act (OSHA); (2) to evaluate questions which should be asked to achieve these objectives; and (3) to discuss analytical approaches in order to answer such questions.

Safety, rather than health, is emphasized as the available data in this field are, so far, much superior. The difficulties in using Bureau of Labor Statistics (BLS) data, and alternative sources, to evaluate the overall impact of OSHA are discussed. Problems of determining what strategies within OSHA have the greatest payoff in terms of injury reductions are also presented.

The author attempts to determine whether: (1) Any decline in injuries is OSHA-induced; (2) whether such reductions could have been accomplished by alternative programs; and (3) whether State programs are as effective as the Federal program in reducing occupational injuries.

NTIS PB290373/AS; PRICE CODE: A02; 24 PAGES

4-028 A DECISION THEORETIC APPROACH TO THE EVALUATION OF MANPOWER PROGRAMS

Frank P. Stafford
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Princeton, N.J.

Purchase order B-9-M-5-1420

May 1975

Descriptors: COST-BENEFIT ANALYSIS; EMPLOYMENT AND
TRAINING PROGRAM MANAGEMENT; UTILIZATION OF
EMPLOYMENT AND TRAINING RESEARCH AND
DEVELOPMENT; METHODOLOGY

This paper outlines a method for determining sample size for program evaluation in a cost/benefit framework.

The main point is that, given a prior distribution on the outcome parameter of the policy, a sample size can be chosen such that the marginal expected gain from additional sampling equals the marginal cost of sampling. This will, in general, differ from the criteria of "significant at the 5-percent or 1-percent level." Programs that are more economically important should generally be subjected to greater sampling. In programs which, prior to sampling, are viewed as close to breakeven values, there should be a monotonically increasing Expected Value of Sample Information (EVSI) as sample size grows. The problems posed by sequential sampling are of considerable practical importance as well, but formal treatment requires a complex analysis not provided here.

NTIS PB256256/AS; PRICE CODE: A03; 47 PAGES

4-029 THE EFFECT OF MANPOWER TRAINING ON EARNINGS: PRELIMINARY RESULTS

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Contract J-9-M-5-0021

June 1975

Descriptors: TRAINING EFFECTIVENESS AND IMPACT;
EMPLOYMENT AND TRAINING PROGRAM MANAGEMENT;
RETURNS ON TRAINING; METHODOLOGY

This research weighed the advantages and disadvantages of quantitative analysis of changes in earnings attributed to employment and training programs, using longitudinal data on trainees from social security records, and applied this method to one cohort of trainees who participated in institutional (classroom) training under the Manpower Development and Training Act (MDTA).

Just as training was considered the panacea of the 1960's for resolving the problems of chronically unemployed workers, it is now widely believed that these training programs were failures. Neither judgment about training programs has been supported by any careful empirical analysis.

The earnings of the 1964 cohort of MDTA trainees studied here did seem to have been raised by training above what they otherwise would have been, though the absence of an experimental design raises questions about the estimates. Clearly further work with the data system described here would be desirable. Still, there is no substitute for a carefully designed study using experimental methods, and there is no reason why this could not still be carried out. But perhaps it is too late for such a study, given the current emphasis on public employment programs.

NTIS PB268815/AS; PRICE CODE: A02; 16 PAGES

4-030 FEDERAL MANPOWER PROGRAMS: THE NEED FOR EXPERIMENTAL DESIGN

Jo Meigs
U.S. Department of Labor/ASPER
Washington, D.C.

August 1975

Descriptors: EMPLOYMENT AND TRAINING PROGRAM MANAGEMENT; METHODOLOGY; ASSESSMENT AND EVALUATION; RETURNS ON TRAINING

This paper sets forth the principles of experimental research design to evaluate the effectiveness of manpower programs designed to increase the participants' earnings, wage rates, and job security. Several less effective approaches are presented for comparison, to illustrate their inadequacies.

Programs should be initially designed as experiments (or have experimental components) to facilitate evaluation. An intentionally experimental approach would afford the opportunity to learn faster by trying alternative concepts simultaneously and would increase the likelihood that one could determine not only that a particular concept failed, but also why it failed. Unless studies are conducted systematically, the conditions under which a particular method is most useful will not be learned. Much improvement is still needed before policymakers will allow this research to be a crucial part of the decisionmaking process.

NTIS PB266047/AS; PRICE CODE: A04; 68 PAGES

4-031 A CRITIQUE OF TAX BASED COST/BENEFIT RATIOS

James P. Smith
The Rand Corporation
Santa Monica, Calif.

Purchase Order B-9-M-6-0789

December 1975

Descriptors: DATA SOURCES AND USE; EMPLOYMENT AND TRAINING POLICY; COST-BENEFIT ANALYSIS

This study discussed the theoretical difficulties inherent in basing social investment decisions solely on considerations involving the additional tax payments and tax receipts the investment generates. It investigated the conditions under which the true social cost/benefit ratio is related to a cost/benefit ratio where costs are defined only as the tax dollars used to finance manpower programs and benefits are defined as the tax receipts from the net earnings gains due to the manpower program.

The use of any cost/benefit ratio was found to be conceptually invalid. All were deemed to discriminate among people based on factors unrelated to economic efficiency, to have perverse equity effects, and to measure only part of the benefits and costs. As taxes, fundamentally, are transfer payments and therefore do not reduce the real resources of society, they are not useful for social planning. Using tax-based ratios can easily reverse the proper ordering of public investments because costs and benefits do not change proportionally.

NTIS PB256273/AS; PRICE CODE: A02; 25 PAGES

4-032 AID TO VETERANS THROUGH REEMPLOYMENT RIGHTS AND THROUGH THE EMPLOYMENT SERVICE: EVALUATION AND RESEARCH ISSUES

Michael K. Taussig
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Purchase order B-9-M-5-1732

December 1975

Descriptors: GOVERNMENT PROGRAM IMPACT; VETERANS; EMPLOYMENT OPPORTUNITIES; GI BILL OF RIGHTS; PUBLIC EMPLOYMENT SERVICE

This study outlined the main evaluation and research issues related to the effectiveness of two Federal programs to assist veterans in obtaining satisfactory employment. One program guarantees returning veterans rights to employment with their previous employer at pay and other benefits that would have been attainable with continued service on the job; the other entitles them to special job search assistance and relevant services through the employment service.

It was concluded that, because neither program had incorporated means of evaluation based on established standards of experimental design, the need to rely on expensive retroactive surveys might make any evaluations of the programs useless except to historians.

NTIS PB262327/AS; PRICE CODE: A03; 27 PAGES

4-033 THEORETICAL ISSUES IN THE ESTIMATION OF PRODUCTION FUNCTIONS

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Purchase order B-9-M-5-0823

February 1976

Descriptors: COST-BENEFIT ANALYSIS; COMPREHENSIVE EMPLOYMENT AND TRAINING ACT (CETA); ECONOMIC ANALYSIS AND ECONOMETRICS; METHODOLOGY

The primary purpose of this study was to develop a theoretical framework for applying the economic theory of production to employment and training programs in general, with particular emphasis on current programs under the Comprehensive Employment and Training Act of 1973 (CETA).

The cost/benefit analysis framework used in most previous evaluations of employment and training programs was explained as it relates to the production function framework. The advantages and limitations of the two approaches were enumerated, and it was concluded that in spite of the difficulties involved, the production function approach provided more useful information than the cost/benefit framework. A review of the production function developed for education, which is similar in many ways to training programs, considered the problems (defining and measuring the inputs and outputs, determining the functional form, and specification errors, such as unobservable variables and fallible measures of variables) that can occur and how they can affect empirical results. The production function theory was applied to training programs and a technique for pricing the outputs of the program was described.

NTIS PB256247/AS; PRICE CODE: A04; 72 PAGES

4-034 A METHODOLOGY FOR MEASURING THE IMPACT OF THE UNITED STATES EMPLOYMENT SERVICE

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Contract J-9-M-6-0008

May 1976

Descriptors: PUBLIC EMPLOYMENT SERVICE; DATA SOURCES AND USE; METHODOLOGY; EFFECTIVENESS OF PROGRAMS

Recognizing that the employment service (ES) may have effects on economic behavior that are not captured fully by any single economic model, this study formulated alternative theoretical perspectives. It set up a framework for enumerating costs and benefits of a public employment service, without regard to whether the elements could be measured with available data. The measurements of the net impact of the ES (including extra wages and fringe benefits for workers, reductions in transfer income, and income taxes paid by beneficiaries) reflected the distinction between additions to and the redistribution of the Gross National Product (GNP). The measures of ES benefits distinguished between its labor market functions (employer services such as ordertaking, and the counseling and placement of workers, for example) and its enforcement functions (administering the unemployment insurance work test, for example), and apportioned the benefits to capital, labor, and the community (as, for example, the reduction of crime). The benefits considered included reductions in the duration of unemployment, reductions in quit rates, and reductions in the underutilization of skills.

The advantages and disadvantages of existing data sources for estimating the major equations developed in the study were discussed. It was pointed out that the benefits in a dual labor market would be contingent on whether the ES served the primary or the secondary market.

NTIS PB256271/AS; PRICE CODE: A08; 158 PAGES

4-035 UNDERADJUSTMENT BIAS IN THE EVALUATION OF MANPOWER TRAINING

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Contract J-9-M-5-0140

June 1976

Descriptors: METHODOLOGY; COST-BENEFIT ANALYSIS; EMPLOYMENT AND TRAINING PROGRAMS

In the absence of randomization in evaluations of employment and training programs, one cannot assume pretraining equivalence between trainees and the control group. The problem then becomes to "adjust away" any pretraining differences, so that the posttraining differences can be validly interpreted as an estimate of the training's effect.

This study argued that the usual evaluation designs systematically underadjust for pretraining differences and hence produce biased results. The study's objectives were: (1) To clarify the source of underadjustment bias; (2) to survey the literature and suggest the probable direction of this bias present in the major evaluations; (3) to investigate

whether such biases can plausibly be of sufficient magnitude to alter the policy implications of evaluation results; and (4) to investigate the feasibility of statistically correcting for such biases.

The findings suggested that while bias often distorts evaluation results, a valid correction can be made only when a number of specific assumptions are satisfied. Given the uncertainty of these assumptions, the basic recommendation was increased use of randomized experiments in program evaluation.

NTIS PB270525/AS; PRICE CODE: A04; 56 PAGES

4-036 THE LABOR MARKET DISPLACEMENT EFFECT IN THE ANALYSES OF THE NET IMPACT OF MANPOWER PROGRAMS

George E. Johnson
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Contract J-9-M-6-0095

July 1976

Descriptors: COST-BENEFIT ANALYSIS; EMPLOYMENT AND TRAINING PROGRAM MANAGEMENT; RETURNS ON TRAINING; IMPACT OF EMPLOYMENT AND TRAINING POLICIES; METHODOLOGY

This study examined the meaning of new estimates of the benefits and costs of employment and training programs, concentrating on the displacement problem. The basic assumption was that if a trainee displaces an incumbent in the labor market, the trainee's gain in earnings following training overstates the benefits of the program and that, conversely, when the trainee is drawn from a weak labor market, the loss of earnings while training does not necessarily represent a loss of output because the trainee's former job is filled by another worker. The study employed a series of simple models of labor market behavior which considered: (1) Conditions of continuous full employment; (2) drawing trainees from a labor market characterized by substantial unemployment; (3) the relation between the social returns to the program and the returns that would be inferred from microeconomic data, with allowance for job turnover, particularly in short-duration jobs; and (4) substantial unemployment in the source market but continuous full employment in the receiving market, which depresses all conventional measures of social returns because the average earnings of the control group exceed the loss of output caused by removing the trainee from the source market.

Under the most likely values, social returns would exceed private returns, so that less training than desirable would occur in the absence of government programs, the study concluded. Further, for programs like the Work Incentive (WIN) Program, which attempt to move individuals from out of the labor force into low-wage employment, the analysis suggested that observed earnings increases were likely to overstate the true increase in aggregate output due to the program. For training which moves individuals from one slack market to another, the relation between observed and true social returns was not clear.

NTIS PB256259/AS; PRICE CODE: A03; 48 PAGES

4-037 ESTIMATES OF BENEFITS FROM TRAINING

Gordon Goodfellow
Princeton University
Princeton, N.J.

Contract J-9-M-6-0095

July 1976

Descriptors: TRAINING EFFECTIVENESS AND IMPACT; METHODOLOGY; OCCUPATIONAL TRAINING; JOB OPPORTUNITIES IN THE BUSINESS SECTOR (JOBS); RETURNS ON TRAINING

This paper presents four estimates of the effects of training on post-program earnings, wage rates, and weeks of employment for two programs—institutional training under the Manpower Development and Training Act and Job Opportunities in the Business Sector (JOBS). The first estimates were calculated from a simple pre-post comparison of the relative changes in these variables for trainees and comparison group members. The others were estimated from a regression equation using unadjusted data, adjusted data, and an interaction term. The data were drawn from 10 Standard Metropolitan Statistical Areas, two sex groups, and two race groups.

The preliminary results indicated that training has a beneficial effect on trainees. However, the estimate of that effect was sensitive to choice of estimating variables, and that theory could be used to move these estimates in what is believed, *a priori*, to be the right direction. The observed differences between trainee and comparison group members and possible biases in trainees' observed economic behavior made it difficult to arrive at a single estimate of the effect of training.

NTIS PB256331/AS; PRICE CODE: A03; 29 PAGES

4-038 BIAS IN THE ESTIMATES OF THE TREATMENT EFFECTS IN QUASI-EXPERIMENTAL EVALUATIONS

Burt S. Barnow
U.S. Department of Labor/ASPER
Washington, D.C.

August 1977

Descriptors: ECONOMIC ANALYSIS AND ECONOMETRICS; ASSESSMENT AND EVALUATION; RANDOM SAMPLING

This paper examines, in a formal analytical framework, some of the conditions in which nonrandom selection procedures lead to bias in estimation of treatment effects and the direction that such bias takes. The goal of this paper is to demonstrate that in the presence of measurement error for the independent variable, estimates of treatment effects may be biased. Both the magnitude and direction of the bias are functions of the selection procedures used and the relationship between the variables used in selection and statistical control. The dangers of relying on an *ad hoc* rule such as using the simple correlation between the control variable and the treatment variable as an indicator of the direction the bias will take are pointed out. The dangers of getting biased estimates of treatment effect are likely to be present in quasi-experimental evaluations of educational and employment programs. Selection of control groups *ex post* from the untreated population should be avoided. Planning

the evaluation strategy at a program's inception can minimize the likelihood of getting biased estimates of the treatment effect.

NTIS PB280060/AS; PRICE CODE: A02; 19 PAGES

4-039 PROCEDURE FOR EVALUATING INCOME DISTRIBUTION PROGRAMS

Edward M. Gramlich and Michael J. Wolkoff
University of Michigan
Ann Arbor, Mich.

Contract J-9-M-7-0062

April 1978

Descriptors: NEGATIVE INCOME TAX; MINIMUM WAGE LAWS; PUBLIC EMPLOYMENT PROGRAMS; INCOMES POLICY; COST-BENEFIT ANALYSIS; POVERTY

This paper discusses a procedure for obtaining information on the distributional gain per dollar of income transfer, positing an aggregate benefits function that values income gains of a recipient family more, the worse off the family is. The extent to which three alternative programs for redistributing income—negative income tax, public employment, and minimum wages—raise the benefit function per dollar of cost to taxpayers or consumers is measured. Comparison of these benefit-cost ratios yields information on the relative efficiency of each way of redistributing income under various assumptions about the form of benefits function and social costs. Calculations were made with the Panel Study of Income Dynamics.

Some tentative conclusions are: (1) Among the three alternatives, negative income taxes generally get the highest relative ranking, but are not always the most efficient because of some labor supply reduction and a fair amount of income support for families with reasonably high permanent incomes. (2) At modest cost levels, low tax-rate plans usually outperform high tax-rate plans. (3) Public employment generally performs better than minimum wages. Minimum wages for family heads appear to redistribute some income, at no budget cost and at a relatively low social cost, but are not nearly as effective per dollar of this low social cost as other methods of redistribution.

NTIS PB289905/AS; PRICE CODE: A03; 41 PAGES

4-040 CONFERENCE REPORT ON EVALUATING THE 1977 ECONOMIC STIMULUS PACKAGE

U.S. Department of Labor/ASPER
Washington, D.C.

1978

Descriptors: ASSESSMENT AND EVALUATION; METHODOLOGY; CONFERENCES; ECONOMIC POLICY; GOVERNMENT PROGRAM IMPACT

This report includes five papers presented at a 1977 conference held at the Brookings Institution to consider how to evaluate the performance of four of the five components of the President's 1977 Economic Stimulus Appropriations Act.

The papers do not provide program evaluations, rather, the authors were requested to assess the adequacy of existing evaluation plans and to recommend changes in methodology.

"Evaluating the Effects of the Employment Tax Credit" by Orley Ashenfelter sets out in a simplified form the accounting details of how the employment tax credit is designed to operate in terms of the change in the wage rate it may be expected to induce. The resulting microeconomic behavioral changes are discussed as well as the macroeconomic issues that must be considered for proper evaluation.

"Approaches to Evaluating the Local Public Works Program" by Jeffrey M. Perloff suggests three econometric studies to analyze and evaluate local public works programs and presents arguments for and against the public works program as a countercyclical policy.

"Evaluating Antirecession Fiscal Assistance" by Edward M. Gramlich examines the existing methods of evaluating the fund allocation mechanisms for fiscal assistance to State and local governments and suggests a broader range of questions to be asked about the program and new ways to conduct an evaluation study of fiscal assistance programs.

"Evaluating the CETA Public Service Employment Program" by Michael Wiseman summarizes the Department of Labor's evaluation for CETA public service employment programs. It distinguishes between evaluation aimed at verifying assumptions upon which public service employment is based, and evaluation aimed at improving the congruence between what public service employment programs are, and what theoretically they should be.

"Evaluating the 1977 Stimulus Package: A Summary Statement" by Michael L. Wachter discusses the problems of overall evaluation. The lack of adequate data—caused by noncomparability of data collected by different Departments—is one of the major problems of evaluation. A number of new sources of data bases are suggested. The author recommends that evaluation studies pay closer attention to the potential tradeoff between short-run demand multipliers and inflation effects.

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